

HORTUS BOTANICUS
AMERICANUS

NUMBERS I & II



1811

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(TO BE COMPLETED IN SIX NUMBERS)

SKETCHES

TOWARDS A

HORTUS BOTANICUS
AMERICANUS;

OR,

COLOURED PLATES

OF

MANY NEW AND VALUABLE PLANTS

OF THE

West Indies and North and South America.

TO WHICH IS ANNEXED,

A CATALOGUE OF THE PLANTS,

(And of many others, Natives of AFRICA and the EAST INDIES,
Which have been, or might be introduced with Advantage into the WEST INDIES,)

WITH CONCISE AND FAMILIAR DESCRIPTIONS OF MANY SPECIES,

Shewing their various, common and botanical Names, Places of Growth, Medical Virtues or General Uses,
their Classes and Orders.

Arranged after the Linnæan System.

ALSO

A CONCISE YET COMPREHENSIVE GLOSSARY OF TERMS, PREFIXED,
AND A GENERAL INDEX.

By W. J. TITFORD, M.D.

CORRESPONDING MEMBER OF THE SOCIETY FOR THE ENCOURAGEMENT OF ARTS, &c.

The following PLANTS of the WEST INDIES, &c. (inter alia) will be noticed.

Arrow Root	Fringe Tree	Cenchrus	Button Wood	Wild Olive	Ipecacuanha
Indian Shot	Catalpa	Comocladia	Button Weed	Sandal Wood	Coffee Tree
Ginger	Garden Balsam	Tamarind	Iron Tree	Dodder	Snow Berry
Turneric	Vervain	Sugar Cane	Callicarpa	Turnsole	Button Tree
Hogmeat	Wild Clary	Guinea Grass	Plantain	Tournefortia	Four o'Clock
Galangal	Pepper	Corn Grass	Broom Weed	Worm Grass	Tobacco
Alpinia	Maiden Plum	Scotch Grass	Cissus	Bind Weed	Winter Cherry
Costus	Flower de Luce	Bahama Grass	Dogwood	Spanish Woodbine	Nightshades
Jasmine	Moraea	Sundry Grasses	Contrayerva	Lobelia	Sweet Potatoes
Olive Tree	Adruc	Bamboo Cane	Ammania	Jamaica Bark	Love Apple

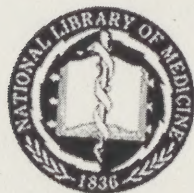
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1811.

NATIONAL LIBRARY OF MEDICINE
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District of New York, ss.

BE it remembered, that on the 21st day of September, in the Thirty-fifth Year of the Independence of the United States of America, WILLIAM J. TITFORD, of the said District, hath deposited in this Office the Title of a Book, the Right whereof he claims as Author, in the words following, to Wit:

“ Hortus Botanicus Americanus, or Coloured Figures, with concise Descriptions of
“ several Plants of the East and West Indies and the Continents of North and South
“ America, shewing their Medical Virtues and general Uses: to which are annexed, a
“ Glossary of Botanical Terms, and a Nosological Table of Diseases, &c. by W. J.
“ Titford.”

In conformity to the Act of the Congress of the United States, entitled “ An Act for the Encouragement of Learning, by securing the Copies of Maps, Charts and Books to the Authors and Proprietors of such Copies, during the times therein mentioned”; and also to an Act entitled, “ An Act supplementary to an Act entitled an Act for the Encouragement of Learning by securing the Copies of Maps, Charts and Books to the Authors and Proprietors of such Copies during the times therein mentioned; and extending the Benefits thereof to the Arts of Designing, Engraving and Etching Historical and other Prints.”

CHARLES CLINTON,
Clerk of the District of New York.

HERBERT'S BOTANICAL NOMENCLATURE.
BY HERBERT A. J. WOOD, M.D.,
OF NEW YORK.

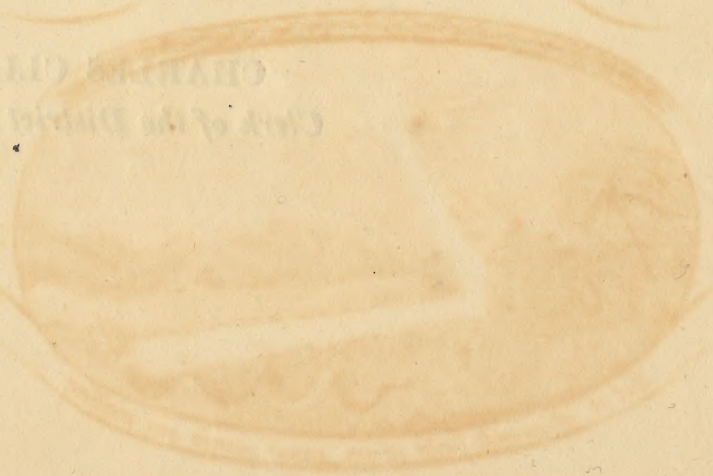
with Concise Descriptions.

The author has endeavored to give the reader a full and complete knowledge of the names of the plants of the United States and America, and to give a full and complete knowledge of the names of the plants of the United States and America, and to give a full and complete knowledge of the names of the plants of the United States and America.

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CHARLES CLINTON,
Clerk of the District of New York.



New York 1850

HORTUS BOTANICUS AMERICANUS,
or
Coloured Figures,

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Of several Plants of the East & West Indies, & the
Continents of **NORTH** and **SOUTH** America;
Shewing their Medical Virtues & General uses:

To which are annexed,
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Physiological
Table of Diseases &c.

BY

Wm Jth Telford.



New York 1810

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P R E F A C E.

THE term Botany is derived from *Botany*, (*Botane*) a herb, and signifies, generally, a knowledge of the great vegetable kingdom of nature, the properties of plants, as food and medicine, and the various uses to which they may be applied in agriculture, medicine, domestic œconomy and the arts. In a more confined sense, it may be defined the knowledge of a scientific mode of arrangement, for the numerous plants which are to be found scattered over the surface of the globe, and diversified by the hand of Infinite Wisdom and Goodness, according to the respective climates, and the wants of the inhabitants of the various regions of the earth. In Tropical climates, the vegetable productions of nature are in the highest degree beautiful and magnificent. She is there clothed in perpetual verdure, and seems to be endowed with superior powers of fertility, presenting to the wondering eye, her ripest fruits, and on the same tree, the budding leaf, the verdant foliage, the bursting blossom, and the future fruit in different stages of maturity. Not only do these beautiful objects arrest our attention and command our admiration, but the more humble shrub and lowly herb are fraught with wondrous medical virtues, many of which are known only, perhaps, to the

natives (otherwise illiterate) by experience and observation. To gentlemen studying medicine, a scientific knowledge of Botany is indispensably necessary—to the man of leisure and taste what study can be more interesting, or calculated to fill his mind with more pleasing ideas of the Creator, than the great book of vegetable nature, which lies open before his eyes, and invites him, by all the allurements of beauty, and wonderful and minute contrivance, to a nearer acquaintance; by which the hours devoted to exercise and health may at the same time be both agreeably and profitably employed. But for the fair sex, who to the advantage of leisure unite the still greater advantage of a natural taste and discriminating judgment, for pleasures as pure and innocent as they are noble and sublime, the study of Botany is peculiarly adapted, and has become particularly pleasing, as we may judge from the taste which has of late years prevailed in its favour in the United Kingdom, is also prevalent in other parts of the globe, and it is to be hoped will continue to increase. Its usefulness cannot be doubted, when we consider that the principal articles of our food, and many which furnish materials for our clothing, are plants, and that the most valuable and powerful, as well as the most safe of the remedies to be found in the *Materia Medica*, are drawn from the vegetable kingdom; and it is a generally received opinion that most countries possess within themselves simples adapted to the cure of their most prevalent diseases, and particularly so in Tropical climates. A skilful botanist can, in many instances, from the examination of an unknown plant, by considering its scientific and natural class, determine if it be wholesome food for man or beast, or whether on the contrary its properties be poisonous and deadly. By attending to the habit and characteristic appearance of the several plants in the natural orders, a wonderful analogy and correspondence may be found in their properties and use as food, and particularly as to their medical properties. A comparative view of the plants growing in each country on the globe under the same climate, and between the same parallels of latitude, is a most interesting, and might be made a most useful and profitable study, by leading to the introduction and cultivation of new and valuable plants: BOTANY then may be safely pronounced to be a study, noble and useful, interesting and pleasing.

The motive which induced me to the undertaking of the present work, was the scarcity of books treating of the plants of the West Indies; and such as were in existence, being of old date, out of print, and unaccompanied

with figures. My leisure time has been employed in the collection of plants, and their names, in making drawings of them, and in giving some accounts of their virtues. An opportunity likewise offered to procure from Negro doctors in Jamaica, and, subsequently, from the Indians in North America, information which may prove new, curious and valuable. It was also hinted to me by the worthy Secretary of the Society for the Promotion of Arts, &c. at the time that Society honoured me by electing me a Corresponding Member, that my attention might be usefully turned to the subject of Jamaica Botany; and when afterwards I spent a considerable time in America, a great part of which was devoted to the study of medicine, and a part to travelling in the interior of the country, I increased my collection of drawings of American plants, gained additional information, and met with encouragement from the medical and other gentlemen there, to prosecute botanical researches, and publish the result of them, as being a work very much wanted. Thus (though I felt myself inadequate to the task,) I endeavoured to put together such information as could be collected, and arrange the plants indigenous or freely growing in North America, according to the Linnæan classes and orders, as I had previously, the Jamaica plants. I was also favoured with several dried plants by a friend from Yucatan in South America. From the mode in which my information was collected, from Negroes and Indians, it must necessarily have been very liable to error; and, no doubt, many other uncertainties and mistakes may be found, for which I trust to the liberality of the public for indulgence. The following sheets were compiled abroad, partly while travelling, and totally debarred from the use of books, which might have greatly assisted to render the work more complete; but it was inconsistent with my plan to make it voluminous and expensive, and since my return to England, my time being fully taken up with other avocations, which leave no leisure to consult all the very useful and valuable publications which have of late appeared in this science, I am compelled to submit my collections to the public as they were brought over.

The mode of arrangement adopted is---A Glossary of the Terms used in the work, compiled for my own use from books in my possession when learning the science, as short and simple as possible, referring to the plates for an idea of the several parts of fructification and shapes of leaves, &c. instead of long definitions. But I have carried this part of the work to a greater length than originally intended, and in the compilation of it have endeavoured to make it as comprehensive and useful, yet concise as possible, on the consideration that in the West Indies there is a great want of an *elementary* work on the sub-

ject, in a small compass, for general use. It may also be found useful for persons learning Botany, and the use of Schools. The work proceeds with a few Observations on the Character and Habit of Trees, of the various classes, illustrated by plates---A Description of various Seeds and Pincarps, with a plate --- West Indian Plants, arranged after the Linnæan System, under their classes and orders---American Plants arranged in the same manner---A general Index referring to the pages, and a list of Subscribers will close the whole.

W. J. T.

A GLOSSARY;

OR,

EXPLANATION OF THE OUTLINES OF BOTANY, AND THE TERMS USED IN THE DESCRIPTION OF PLANTS.

AS the flower may be considered the termination or end of the old plant, and a preparation for the seed or rudiment of the new plant, it will be proper to begin with *The Parts of Fructification*, which are eight. 1. The Calyx, (*Calyx.*) 2. The Corol, (*Corolla.*) 3. The Stamen, (*Stamen.*) 4. The Pistil, (*Pistillum.*) 5. The Pericarp, (*Pericarpium.*) 6. The Seed, (*Semen.*) 7. The Receptacle, (*Receptaculum.*) 8. The Nectary, (*Nectarium.*)

1. CALYX, a general name, expressing the cup of a flower; it is the termination of the outward bark, and surrounds, encloses, or supports the other parts of the flower, is usually of a green colour, but in some few flowers entirely wanting. It is various in its structure, and is distinguished by the several names of,

1. PERIANTH, (*Perianthium*) from *περι*, *peri*, around, and *ανθος*, *anthos*, the flower, called Empalement, consists of several leaves, or of one leaf divided into several segments, it is then called Monophyllous, Diphyllous, Triphyllous, &c. or Polyphyllous, as it may consist of one, two, three, &c. or many segments. See plate 4, fig. 2. of the Perianths in Arrow Root and Indian Shot. It is called Common, when it supports and connects together a great number of florets—and Imbricated, when composed of a number of leaves lying one over the other, like scales or tiles on the top of a house.

2. INVOLUCRE (*Involucrum*) is, when the Calyx, usually consisting of several leaves, is situated at the foot of a number of flowers growing together, each of which has, be-

sides this general cup, its own particular perianth. Its leaves are generally disposed in a radiated manner, as in Dogwood. The involucre belonging to each umbel, or bunch of flowers, is called Partial; that which grows at the base of the whole collection of umbels, is called General. In Fool's-parsley it is half-leaved, (*dimidiatum*.)

3. GLUME, (*Gluma*) or Chaffy Husk, is a species of cup which chiefly belongs to grasses, and consists of one two, three or more valves folding over each other, like scales, and frequently terminated by a long stiff-pointed prickle, called the Awn, or Beard—for example, Rice, Mays, or Indian Corn.

4. AMENT, (*Amentum*) or Julius, is commonly called a *Catkin*, and consists of a great number of chaffy scales, disposed along a slender thread, or receptacle, as in Hickory, Chinquepin, &c. Those flowers, supported by an ament, are generally destitute of petals.

5. SPATHE, (*Spatha*) consists of a simple membrane, growing from the stalk in a sheath-like form, and wraps round the flower or flowers contained in it, till they are strong enough no longer to require its protection. It is sometimes simple, as in Narcissus, sometimes divided in two, as in Water Soldier, or imbricated, as in Plantain and is common to flowers having bulbous or tuberous roots.

6. CALYPTRE, (*Calyptra*) from *καλυπτο*, *calupto*, I cover, is peculiar to mosses.

7. VOLVE, (*Volva*) is membranaceous, and peculiar to mushrooms and funguses in general; it is also called Ruffle or Curtain.

II. The COROL (literally, a Garland) is that delicate part of the flower which most attracts our notice, being generally beautifully coloured; it is enclosed by, and situated next to, the calyx, and surrounds and protects the organs of generation. Linnæus says it is formed from the inner rind of the plant, as the calyx is from the outer. Its coloured leaves are called Petals. When the Corol is composed of one petal, it is called Monopetalous, as in Arrow Root, plate 4, fig. 1. Dipetalous, as Enchanter's Nightshade, Tripetalous, as in Water Plantain, Pentapetalous, as in Marsh-mallow, &c. or Polypetalous, as Water Lily, according to the number of pieces of which it is composed, two, three, five, &c. or many. The lower narrow part of a Monopetalous Corol is called the Tube, (*tubus*); the upper spreading part, the Limb, (*limbus*), as in Four o'Clock, plate 6, fig. 1. The lower narrow part of a Polypetalous Corol is called the Claw, (*unguis*), the upper spreading part, Lamina, as in Barbadoes Pride, plate 7, fig. 7. The Corol also assumes different names according to the diversity of its form. Bell-shaped, (*campanulata*), as the Red Lily, plate 7, fig. 2. Funnel-shaped, (*infundibuliformis*), as in Tobacco; Salver-shaped, (*hypocrateriformis*), as in Four o'Clock, plate 6, fig. 1. Wheel-shaped, (*rotata*), as in Savanna Flower, plate 6, fig. 3. Rose-like, (*rosacea*), as in Mammee Apple, plate 8, fig. 3. Gaping, (*ringens*), as in Sesame, plate 9, fig. 7. the opening of the latter is called the Mouth, (*fauz*); when that is closed with an intervening substance, it is called Grinning, (*personata*), Twisted, (*torta*), as in South Sea Rose, plate 5, fig. 5. Undulated, (*undulata*) as in Calabash, plate 8, fig. 4. Butterfly-shaped, (*papilionacea*), as in Sweet Pea. This latter consists of four petals, the uppermost of which is called the Standard, (*vexillum*),

the two side ones, the Wings, (*ale*), and the lowermost, the Keel, (*carina*). The Corol is also called Compound, (*composita*), when it consists of a number of florets, placed in a common receptacle, and contained within a common calyx, as in Dandelion, Blue Bottle, &c. Of Compound Flowers there are three kinds—Ligulated, (*ligulata*), when all the florets are flat; Tubulated, (*tubulosa*), when all the florets are tubular and nearly equal; and Radiated, (*radiata*), when those in the centre are tubular, and those in the circumference flat and spreading. Double or Full flowers, (*mulpicatus seu plenus flos*) last longer than simple ones, but are incapable of producing perfect seed.

III. The STAMEN is the male organ of generation, and is composed of three parts, the Filament, (*filamentum*), the Anther, (*anthera*), from *ανθος*, *anthos*, a flower; and the Dust, (*pollen*), which parts are all visible in Barbadoes Pride, plate 7. fig. 7. The filament is the slender thread-like substance (sometimes called chives) which supports the anther, and connects it to some part of the fructification, most commonly to the corol, frequently to the calyx and receptacle, and sometimes to the pistil. It is in some tapering, in others of the same thickness throughout, smooth or hairy. The filaments in some flowers are very long, in others, entirely wanting. The anther is that part which contains the pollen, or impregnating dust, and when ripe, bursts and scatters it abroad for the use to which nature has destined it. In general it is composed of two oblong or roundish cavities, which burst longitudinally, in some plants gradually, in others, all at once, with considerable violence; for this purpose the filament is curled up like the spring of a watch, and is suddenly set at liberty. In some flowers, which generally hang down, this dust is discharged through a hole in the top of the anther. It varies much in its shape, and takes the several ones, of round, flat, oblong, kidney-shaped, twisted, horned, or terminated by a membrane. When the filament is inserted near the end of the anther, it is called erect; or, oblique, when it is connected with the middle; when the anther lies across, it is incumbent; if it turns as on a pivot, versatile, and where the filament is wanting, adnate. The dust is a fine powder, contained in the anther, for the purpose of impregnation, of a yellow colour; but from this it sometimes varies, as also in the form of the corpuscles, of which it is composed.

IV. The PISTIL, also called Pointal, is the female organ of generation, and contains the seed which is to be fertilized by the dust; it is placed in the very centre of the flower, and is composed of three parts, the Germ, (*germen*), the Style, (*stylus*), and the Stigma, (*stigma*), which parts may be distinctly seen in the blossom of Calabash, plate 8, fig. 4.

The GERM, considered by Linnæus as the *ovarium* or *uterus* of plants, is of various shapes, but is always situated at the bottom of the pistil. It contains the embryo seeds, and when mature, takes the name of Pericarp. It gives origin to the style, as in the Guaiacum Tree, plate 7, fig. 9.

The STYLE is that small pillar which grows from the germ, on the top of which is usually placed the stigma. In some plants the style is extremely short—in others entirely wanting. It corresponds to the vagina in animals.

The STIGMA is usually placed on the top of the style, or if that part be wanting, immediately on the germ. It is a part of great importance, as it receives the dust of the anthers, and conveys it, or its effluvia, through the fine vessels of the style to the seed contained in the germ. Indeed, the anther and stigma are by Linnæus considered as the essential parts of a flower, and, in the language of Botany, they constitute one. These parts being present, are sufficient to the production of fruit—without them, there can be none: the presence of the stigma implies that of the germ, as the anther does of the dust. It is exceedingly various in its form, generally downy or velvety, sometimes ramified finely, or filiform or thread-like; single, bifid, trifid, quadrifid, quinquifid or globular; perforated, hooked, simple, flat and orbicular, spreading or rolled back. The stigma is also frequently bedewed with a clammy moisture, which is admirably adapted to catch the dust from the anther. In monœcious plants the female flowers are placed below the male, as is admirably exemplified in Sand Box-tree and Oil-nut.

V. The PERICARP, or Seed Vessel, *περι, peri*, round, and *καρπος, carpos*, fruit, is a case or covering for the seed, which is present in most plants, though in some the seed is naked, and fixed on the end of the receptacle, and in others, contained in the bottom of the calyx. According to the diversity of its structure it takes the different appellations of Capsule, (*capsula*), Silique, (*siliqua*), Legume, (*legumen*), Follicle, (*folliculus*), Drupe, (*drupa*), Pome, (*pomum*), Berry, (*bacca*), Cone, (*strobilus*), Nut, (*nux*).

A CAPSULE, or Casket, is composed of several dry elastic valves which, usually burst open at the points, sometimes at the bottom or in the middle. If it consists of two valves it is called Bivalve, if of three Trivalve, and so on. The cavity of the capsule is called a Cell, (*loculamentum*), and, according to the number of cells, is denominated Unilocular, Bilocular, Trilocular, &c. The divisions of the cells are called Dissepimenta, and the substances connecting the partitions to the seeds Columellæ. If it consists of three cells, with each a single seed in it, it is called Tricoccus. Capsules differ much with respect to the manner in which they open; as also in their form and surface; thus we find them, round, oval, long, angular, jointed, &c. some smooth, others prickly, as Indian Shot, plate 3, fig. 1. and Arnotto, plate 3, fig. 24.

SILIQUE, or Pod, has two valves, in which the seeds are fixed to both sutures alternately, as in Mustard, Radish, and Nephritic Tree, plate 9, fig. 6. When the seed vessel is small, short, or round, it is called a Silicle.

LEGUME, or Cod, has two valves, and the seeds affixed to one suture only, as in Beans, Peas, and Gum Arabic, plate 3, fig. 22.

FOLLICLE, or Bag, sometimes called Conceptaculum, is a seed vessel of one valve, opening from top to bottom on one side, the seeds being attached to a receptacle within it, not to any suture, as in Bastard Ipecacuanha, plate 7, fig. 1.

DRUPE, or Stone Fruit, is secculent or pulpy, having no external opening or valve, containing within its substance a stone, or nut, as the Plum, Sassafras, Sour Olive.

POME, or Apple, a fleshy seed vessel, without any external opening, containing within its substance a capsule, as the Apple, Cucumber, Melon and Mammee Apple, plate 3, fig. 10.

BERRY, a pulpy seed vessel, containing within its substance a number of naked seeds, as Raspberry, Currant, and Coffee, plate 3, fig. 5.

CONE, or Strobile, a species of seed vessel, composed of woody scales, within which lie the seeds; it is defined to be formed of an ament, with hardened scales; examples of this are found in the Fir, the Pine, &c.

NUT, expresses a pericarpium of extraordinary hardness, containing a kernel, and has no external opening, as the Filbert, Butternut, Antidote Cocoon, plate 3, fig. 21.

PROPAGO. The seed of the mosses, which has no covering.

VI. The SEED is analogous to the egg in animals, and is defined by Linnæus to be the rudiment of a new plant, similar to the parent stock. It consists of the part which is to be the new plant and of nourishment for it, till it has attained sufficient strength to provide for itself: the young plant consists of the Plumule and the Radicle; the plumule rises into the air and constitutes the trunk and branches, the radicle penetrates into the earth, and forms the roots. The plumule and radicle together are called the Embryo (*corculum*). The part which is to provide nourishment for the young plant forms the bulk of the seed, and consists generally of a farinaceous matter, fit for food, as in Corn, Rice, &c. or mixed with essential oil, as in Oil-nuts, Almond, &c. In most plants it is divided into two parts, called Cotyledons or Seed Lobes, which are sometimes converted into leaves, (though some have only one cotyledon). From the extremity of these arise a number of very minute vessels which unite as they proceed towards the embryo into which they enter in two distinct bodies. Many seeds have also a White (*albumen*), and some a Yolk (*vitellus*), but not commonly. The husk (*cutis*) sometimes called shell, (*testa*) incloses and preserves the cotyledons and embryo, and is composed of two coats of various consistence, having a duplicature which incloses the end of the radicle. The eye (*hilum*) is a mark in the end or middle of the outer husk, being the cicatrix, formed by the breaking off of those vessels which supplied the seed with nourishment. Seeds also generally have a small hole (*foramen*) between the eye and the radicle, and some are furnished with an additional covering termed an aril, (*arillus*) which is a substance very like parchment, exemplified in the Coffee. Seeds vary much in colour, see plate 3, also in number, from one, two, three, or four, to fifteen thousand, likewise in their form, and surface; some are crowned with a pappus, aigrette, or down. When placed immediately on the seed it is called Sessile, when on a footstalk Stipitated, as in Dandelion; when the pappus consists of simple rays it is called Simple, when branched or feathered, Plumose; some are furnished with hooks. The surface of some is rough as Four o'Clock, plate 3, fig. 6, or reticulated like a honey comb, as in Pindars, plate 3, fig. 41.; some glossy, as Akee, plate 3, fig. 14.; others grooved, as

Musk-ochro, plate 3, fig. 26.; some round, as Soapberries, plate 3, fig. 11.; flat, as Sand Box, kidney shaped, as Capsicums, plate 3, fig. 7, and Cashew, plate 3, fig. 15.; or three cornered, as Buck-wheat; oval, as Sweet Sop, plate 3, fig. 25.; twisted, as in Skrew Tree, plate 3, fig. 46.; acuminate, as Star Apple, plate 3, fig. 8.; pointed, as in Naseberry, and Sour Sop, plate 3, figs. 9, and 27. Nature has provided for their dispersion in several ways; some are furnished with a wing, as Mahogany, plate 3, fig. 60.; three wings, as Horse Radish Tree, plate 3, fig. 16.; or an inflated seed vessel, as Bladder Senna; others are thrown out of the seed vessels by the elasticity of the valves, as Balsamine, or an elastic spring surrounding the capsule, and others have long threads, which wrap round the arms of trees. Many are swallowed by birds, rats and squirrels, and afterwards voided entire; the Indians indeed think all their timber planted by squirrels. Seeds also migrate by Rivers, the Ocean, Winds, &c. They retain their vegetative power a long time, which in old seeds may be increased by moistening the earth with water, to which is added oxygenated Muriatic Acid.

VII. The RECEPTACLE is the end of the stalk, which supports all the other parts of fructification, and by which they are connected. It is called Proper, when it supports the parts of only one flower, and Common, when it supports several florets; this last belongs to the compound flowers. Umbel, when it supports from a common center, several small footstalks of proportionable lengths; Spadix is the receptacle of a palm, always branched, and produced within a Spathe or Sheath; in the Indian turnip, and Skunk cabbage it is simple.

VIII. NECTARY is a part found in many flowers, and is extremely various in its forms and uses, sometimes united to the Petals, and sometimes separate from them; appearing in some flowers as a gland secreting honey, in others, as a kind of vessel to receive it. It assumes the different forms of, threads, a cup, or a number of little cups, a beard, a gland, sometimes of a horn or horns, at others of a cockspur, which in some plants is extended to a long point, as in Balsamine, and Chain Cotton, plate 3, fig. 1. The honey contained in it appears to be for the nourishment of the anthers and stigmas. In general when any part occurs in a flower whatever may be its form, if it does not appear to answer the purpose of any of the other parts of fructification, it may safely be considered a nectary.

Having described the parts of fructification, we now proceed to the other parts of the plant, beginning at

The ROOT (*Radix*) is generally understood to be that part of the plant which is under ground, and which draws forth nourishment from the earth necessary for the existence of the plant. The body of the root, or that which lies below the surface of the earth, is termed by Linnæus the Descending Caudex, the fibrous part is termed (*Radicula*), which imbibes nourishment from the earth for the support of the whole plant. The root, like the stalk, consists of the Outer Bark, (*cortex*) the Inner Bark, (*liber*) the Wood, (*lignum*) and the Pith, (*medulla*). In duration it is—Annual, (*annua*) living but one year,—Biennial, (*biennis*) a root which continues to vegetate two years, and Perennial, *perennis* continuing several years. Climates and cultivation have a great effect

on the term of duration of roots of vegetables, as exemplified in the Oil Nut. Plants attaching themselves to the branches of trees are called Parasitic, *parasiticæ* as Vanilla Old Man's Beard and Dodder.

From their various shapes Roots assume the different appellations of

Fibrous, (*fibrosa*) having no solid body, but entirely made up of thread-like fibres, as the Grasses in general: if the fibres are very slender it is called Hairy Root, (*capillacea*).

Præmorse, (*præmorsa*) a root which does not run tapering to its extremity, but seems bitten off, as the Scabious.

Granulated, (*granulata*) consisting of small knobs attached to the root by slender fibres, as in White Saxifrage.

Tunicated, (*tunicata*) consisting of many coats, each forming concentric layers, as Onion.

Fusiform, (*fusiformis*) Spindle-shaped, or Tap-root, a root which tapers downwards to a point, as in Carrot, and in Arrow-root, plate 1, fig. 2.

Subrotund, (*subrotundus*) a root which is nearly round, as in Turnip.

Solid, (*solidus*) of one substance, and not disposed in coats or scales, as in Crocus.

Squammose, (*squamosa*) a root composed of scales lying over each other, as in the Lilies.

Creeping, (*repens*) running under ground, and sending forth shoots at the joints, as the May Apple.

Dentated, (*dentata*) a root having many tooth-like knobs, not attached by fibres, as in Toothwort.

Reptant, (*reptans*) running on the surface of the ground and taking root at the joints, as Mint.

Tuberous, (*tuberosa*) consisting of subrotund bodies, collected into a bundle, as in Sweet Potatoe, plate 1, fig. 11. and Yams, plate 2, fig. 45. It is called Palmated, when it spreads so as to resemble a hand. Fasciculated, when collected into a close bundle, Pendulous, when the knobs hang down, as in Sun Flower, Duplicate, composed of two joined together as the Ophrys, vulgarly called in America, Adam and Eve,

Truffle, (*lycoperdon*) is all root, without stalk or leaves.

The STALK is that part of the plant which rises immediately from the root, and supports the leaves, flowers and fruit; it is termed by Linnæus the ascending Caudex, and is very similar in its structure to the root, consisting of the *outer and inner bark*, and the *sap* (*alburnum*), a soft white substance between the inner bark and the wood, which, in process of time acquiring solidity, becomes the wood, in the centre of which is the pith, which disappears as the trees grow old. The inner structure of plants is found to be chiefly composed of tubes and cells for conveying air and circulating the sap and proper juices of the plant. Some stalks, on being cut, emit a milky juice, and are thence called *lactescent*, as the Physic Nut. Linnæus enumerates four kinds of stalks, Stalk or Stem, (*caulis*) from *Καυλος*, (*kaulos*) that stalk which supports both the fructification and leaves, and is common to plants in general. Straw, (*culmus*) peculiar to the

grasses, proceeding immediately from the root, generally cylindrical and jointed, plate 1, fig. 8—9, but sometimes triangular, as in Adrue, plate 1, fig. 10. Scape, (*scapus*) which supports the fructification, but not the leaves, as in Lily of the Valley. *Stipes*, a kind of stalk peculiar to the fungi and ferns. When the stalk dies down to the root yearly, it is called herbaceous, (*herbaceus*.) If it continues and produces buds it is called Shrubby, (*fruticosus*) or Woody, (*arboreus*). In trees it is generally called the *Stem*. Stalks vary also very much in their form and appearance, the following most frequently occur: Aculeated, (*aculeatus*) beset with sharp prickles, as in Melon Thistle and Dildoe, plate 1, fig. 23 and 24. Two edged, (*anceps*) forming two angles opposite to each other, as in Sisyrinchium. Angulated, (*angulatus*) having many angles. Three-Sided (*Trigonus*.) Compressed, (*compressus*) compressed on opposite sides, so that the transverse section forms an Ellipsis, as Poa Compressa. Tubular, (*fistulosus*) a hollow stem as in Elder. Foliose, (*foliosus*), covered with leaves, as Tuberose. Hispid, (*hispidus*) covered with prickles, superficially rooted, as in the Mad Apple. Pithy, (*inanis*) neither solid nor tubular, as in Papaw, plate 2. fig. 50. Naked, (*nudus*) without leaves or branches. Procumbent, (*procumbens*) lying horizontally along the ground, as Convolvulus. Ramose, (*ramosus*) having many branches. The branches of the stalk are called (*rami*.) Very ramose, (*ramosissimus*) abounding with branches irregularly disposed, as Naseberry, Star Apple, plate 1. fig. 12. Creeping, (*repens*), running horizontally along the ground, and sending forth radiculae at the joints. Sarmentose, (*sarmentosus*) a creeping or climbing stalk, almost naked, producing leaves at the joints, as the Vine. Climbing, (*scandens*), as the Cocoon Antidote. Simple, (*simplex*) a single stem up to its top, not dividing, as the Cocoa nut, plate 2. fig. 42. Solid, (*solidus*) a stem having substance, opposed to tubular and pithy. Thorny, (*spinosus*) having strong woody prickles, as Cashaw, Fingrigo and Nephritic Tree, plate 9, fig. 6. Striated, (*striatus*) grooved or superficially channelled. Hanging down, (*dependens*) as in Weeping Willow and Mangrove, plate 1. fig. 22. Sulcated, (*sulcatus*) deeply grooved or channelled. Stinging, (*urens*) as Thistle. Volute, (*volubilis*) twining up a pole or stem of another plant in a spiral form, as the Yam, plate 2, fig. 45.

LEAVES, (*folia*) are defined to be fibrous and cellular processes of plants, which are of various figures, but generally extended, with a flat membranous or skinny substance; they appear to be the organs of perspiration and inspiration, and are composed of the *woody substance*, similar to the bones in the human body, distributed in ramifications through the middle of the leaf, which gives it firmness and durability. The Fleshy or Pulpy substance, (*parenchyma*) forming its principal substance, and giving the leaf its green colour. These two parts are covered on each side by a membrane or *skin*, which is considerably tougher than the fleshy part; on the under side this appears to be furnished with a number of absorbent vessels to imbibe the humidity of the air. Leaves are primarily divided into Simple and Compound. A Simple Leaf is such whose footstalk is ter-

minated by a single expansion, and assumes many different names, of which the following are some of the principal and most common. First as to their duration.

Caducous, (*caducum*) falling off at the first opening of the flower.

Deciduous, (*deciduum*) falling off with the flower.

Permanent, (*persistens*) remaining till the fruit is ripe.

The above terms are also made use of to express the duration of the Perianth.

Ever-green, (*sempervirens*) the longest degree of duration.

Second, as to their disposition, insertion and direction, they are termed,

Floral, (*florale*) immediately attending the flower, as in Chain Cotton, plate 8, fig. 1.

Rameous, (*rameum*) seated or inserted on the branch, as in Calabash, plate 2, fig. 30.

Cauline, (*Caulinum*) growing immediately on the stem, without the intervention of branches, as in Plantain, plate 2, fig. 49, and the Palms.

Axillary, (*axillare*) proceeding from the angle which the branches form with the stem.

Radical, (*radicale*) proceeding immediately from the root, as Thatch, plate 2, fig. 51.

Seminal, (*seminale*) or seed leaf, into which the cotyledons of the seed expand.

Adnate, (*adnatum*) growing close to the stem, sometimes called Sessile.

Connate, (*connata*) when two leaves opposite are joined at their base, so as to have the appearance of one, as in Honey-suckle.

Drowned, (*demersum*) sunk under water, as *Valisneria Americana*.

Decussated, (*decussata*) growing opposite in pairs and each pair being alternately on opposite sides of the stem.

Distichous, (*disticha*) growing in two rows on two sides of the branch only.

Fasciculated, (*fasciculata*) growing in bundles or bunches, as in Hemlock, Pine, Pitch-pine, &c.

Imbricated, (*imbricata*) lying over one another like the tiles of a house.

Peltated, (*peltatum*) the footstalk being inserted into the disk of the leaf, not the base, as in May Apple.

Perfoliated, (*perfoliatum*) when the base of the leaf surrounds the stalk, it appearing to pierce or go through it, as in Thorough Wort.

Pixidated, (*pixidatum*) one leaf let into another as in Horsetail.

Reclinate, (*reclinatum*) bending downward, the top lower than the base, as in Chocolate Nut, plate 2, fig. 34.

Recurvated, (*recurvatum*) bending in a greater degree than reclinate.

Revolute, (*revolutum*) rolled backwards, as Wild Rosemary. Involute, (*involutum*) rolled inwards.

Vaginant, (*vaginans*) the lower part of the leaf, forming a sheath to the stem.

Whirled, (*verticillatum*) surrounding the stem like the radii of a wheel.

Inflexed, (*inflexum*) bending upwards towards the stem.

From the variety of their forms and surface they take the following names.

Scymeter-shaped (*acinaciforme*,) one edge convex and sharp, the other straiter and thicker.

Acerose, (*acerosum*) surrounded at the base by chaffy squammæ, as in Cedar.

Pointed, (*acuminatum*) terminating in a long tapering point, as in Spanish Dagger, plate 2. fig. 53.

Acute, (*acutum*) terminating in an acute angle, as in Indian Arrow Root, and Indian Shot, plate 4, figs. 1 and 2,

Aggregate, (*aggregatæ*) so regularly composed that a leaf cannot be taken away without destroying the uniformity of the whole, as Houseleek.

Blistered, (*bultatum*) when the parenchymatous substance rises higher than the veins, as in Clary, plate 4. fig. 4.

Ciliated, (*ciliatum*) whose margin is finally edged with hairs, as in American Live for ever.

Notched, (*crenatum*) bluntly notched with angles inclining towards neither extremity, sometimes with segments of small circles, as Wild Sage, plate 9, fig. 4.

Undulated, (*crispum*) from the margin of the leaf being too long for the disk.

Toothed, (*dentatum*) diverging remote points on the margin, as Vervain, plate 4, fig. 3.

Eroded, (*erosum*) when the margin appears gnawed or bitten.

Gibbous, (*gibbum*) when the intermediate pulp renders both sides convex.

Lineare (*lineare*) straight, narrow and the sides nearly parallel, as in Wild Worm-wood.

Nervous, (*nervosum*) having nerves or vessels, extending themselves from the base to the apex without branching out, as in Cinnamon, plate 7, fig. 5.

Palmated, (*palmatum*) divided in several parts beyond the middle, as the Bread Fruit, plate 2, fig. 38.

Serrated, (*serratum*) notched with teeth like a saw, inclining to the apex, or top of the leaf, as in Jack in a Box, plate 9, fig. 5.

Spatulated, (*spatulatum*) roundish at the top, but lengthened by a narrower base in a form of a Spatula, as in Calabash, plate 8, fig. 4.

Spinose, (*spinosum*) having strong sharp prickles, as Mexican Poppy, plate 9, fig. 1.

Tomentose, (*tomentosum*) covered with numerous white hairs, closely matted.

Venous, (*venosum*) whose veins branch and spread over the whole surface of the leaf.

Stinging, (*urens*) burning, as Nettle. Wrinkled or plaited, Plicated, (*plicatum*) as Sea Eryngo.

Woolly, (*villosum*) downy, covered with distinct soft hairs.

Lanceolated, (*lanceolatum*) oblong, gradually tapering towards each point, as Bastard Ipecacuanha, plate 7, fig 1.

Rooting, (*radicans*) as the Aloe, Squill, &c. which will vegetate.

Compound leaves are such whose footstalks are terminated by more than one expansion. The principal distinctions are,

Articulated, (*articulatum*) when one leaf grows from the extremity of another, as in Prickly Pear, plate 1, fig. 25.

Digitated, (*digitatum*) a number of small leaves connected to the extremity of a footstalk, like Radii, as in Horse Chesnut.

Pedated, (*pedatum*) when the footstalk divides into two and connects the leaflets on the interior sides only as in Passion flower.

Pinnated, (*pinnatum*) when many leaflets are connected or grow on each side of a common footstalk, as in Barbadoes Pride, plate 7, fig. 7.

Binate, (*binatum*) having two leaflets on one stalk, as in Jeffersonia Binata.

Abrupt, (*abruptum*) when the same terminates abrupt or without a leaflet, as in Tamarind, plate 5, fig. 1.

Ternate, (*ternatum*) having three leaflets, as in Strawberry.

Interrupt, (*interruptum*) when the leaflets are alternately less.

Doubly Pinnated, (*bipinnatum decompositum*).

Treble Pinnated, (*tripinnatum supra decompositum*).

Fronds (*frondes*) expresses leaves consisting of several other leaves and forming the whole of the plant; as is the case in the fern kind, in which the fructification being on the back of the leaves, the single leaf makes the whole plant. In this case it is not called Folium but Frons.

The other parts usually attendant on the stalk, are called by Linnæus

SUPPORTS, (*Fulcra*, from *Fulcrum*, a prop) and are calculated either to assist the plant in its growth, or to defend it from injuries. Of these he enumerates seven different kinds.

Bracts, (*bractea*) leaves growing with the flower, and usually differing greatly in shape and colour, as in Chain Cotton, plate 8, fig. 1.

Hairiness, (*pubes*) all kinds of hairiness, whether fine or coarse, whether terminating in a sharp point or viscid globule, as in Egg Fruit.

Petiole, (*petiolus*) the footstalk of a leaf, which it supports without any flower.

Peduncle, (*pedunculus*) the footstalk of a flower.

Stipules, (*stipulæ*) from *στυπή*, *stupe*, two small leaves usually placed in pairs at the joints, mostly of leguminous plants, also in the Tulip Tree, the Peach, &c.

Tendril, (*cirrus*) a clasper, by which the plant fastens itself to any other body, as in Winged Pea, Granadilla, Grape, Ivy, and many Cucubitaceous plants.

The following are termed ARMS, (*arma*)

Prickles, (*aculea*) which are superficially fixed only in the rind.

Forks, (*furcæ*) when several grow together; they are called bifid, as in Horned Acacia, trifid, as in Honey Locust, &c.

Thorns, (*spinæ*) rigid prickles growing from the woody part, as in Nephritic Tree, plate 9, fig. 6. Orange Tree, Aloe, Thistle, plate 9, fig. 1. and Thorn Apple.

Stings, (*stimuli*) are the pipes of a small bag furnished with a venomous fluid.

Glands, (*glandulæ*) in different forms, are found in many plants, as Cassada, Oil-nut, Gum Arabic and Mountain Ebony.

INFLORESCENCE, is the mode in which plants flower; the principal of which are,

Whirl, (*verticillus*) the flowers disposed circularly at each joint of the stem, having very short peduncles or footstalks, as in Mint or Horehound.

Spike, (*spica*) ranged alternately, or all round a simple stalk, as in Wheat or Mullein.

Bunch, (*racemus*) each flower furnished with a short proper footstalk proceeding as lateral branches from the common one, as in Grapes or Pokeweed.

Panicle, (*panicula*) disposed on footstalks, variously subdivided, as in Guinea Grass.

Thyrse, (*thyrsus*) a panicle, contracted into an oval or egg-shaped form, as in Lilac or Horse Chesnut.

Umbel, (*umbella*), footstalks proceeding from a common centre and rising to an equal length, so as to form an even or round surface at top, as in Wild Sage, plate 9, fig. 4, in Parsley, Ginseng.

Cyme, (*cyma*) the footstalks proceeding from a common centre, and rising to the same height, but the secondary footstalks irregularly disposed, as in Elder and Dogwood.

Corymbe, (*corymbus*) the partial flower stalks produced along the common stalk on both sides, and though of unequal length, rising to the same height.

Head, (*capitulum*) a mode of inflorescence in which many flowers are collected at the summit of the footstalk, as in Bachelor's Button.

Bunch, (*fasiculus*) the peduncles erect, parallel, placed close, and equal in height, as in Sweet William, Globe Amaranthus.

ON THE CLASSES AND ORDERS OF PLANTS.

A CLASS is the first and highest division of every system. The classic character is constituted from a single circumstance, as the words in a dictionary are arranged by a single initial letter; this one circumstance must be possessed equally by every plant admitted into the class, how different soever they may be in other respects. Linnæus has made choice of the Stamens, and has founded his classes on their number and situation, and his System, or mode of arrangement, (though not entirely exempt from imperfections) has now been so generally received and adopted, that, it has nearly superseded all the rest, and his language become the universal language of Botany. He has divided the vegetable kingdom into twenty-four classes. The first ten, 1—10, include plants in whose flowers both Stamens and Pistils are found, (thence called Hermaphrodite) in which the stamens are neither united nor unequal in height when at maturity. These are therefore simply distinguished from each other by the number of stamens in each flower, and are compounded of the Greek numerals *μῆκος*, *monos*,

one, *δισ*, *dis*, two, *τρεις*, *treis*, three, *τεσσαρες*, *tessares*, four, *πεντε*, *pente*, five, *εξ*, *ex*, six, *επτα*, *epta*, seven, *οκτα*, *okta*, eight, *εννεα*, *ennea*, nine, *δεκα*, *deka*, ten, and the Greek word *ανηρ*, *aner*, a Male, joined to them, to signify one Male, or Stamen, two Stamens, three Stamens, &c. as far as ten Stamens. 1. Monandria, 2. Diandria, 3. Triandria, 4. Tetrandria, 5. Pentandria, 6. Hexandria, 7. Heptandria, 8. Octandria, 9. Enneandria, 10. Decandria.

11. Dodecandria, from *δωδεκα*, *dodeca*, twelve, and *ανηρ*, *aner*, a Male, Hermaphrodite flowers having from twelve to nineteen Stamens, fixed to the receptacle.

12. Icosandria, from *εικοσι*, *eikosi*, twenty, and *ανηρ*, *aner*, a male, hermaphrodite flowers, having twenty Stamens and upwards, inserted into the calyx.

13. Polyandria, from *πολυς*, *polus*, many, and *ανηρ*, *aner*, a male, hermaphrodite flowers having from twenty to a thousand Stamens, inserted into the receptacle.

14. Didynamia, from *δισ*, *dis*, double, and *δυναμις*, *dunamis*, power, hermaphrodite flowers having four Stamens, two long and two short.

15. Tetrodynamia, from *τεσσαρες*, *tessares*, four and *δυναμις*, *dunamis*, power, hermaphrodite flowers having six Stamens, four long and two short.

16. Monadelphia, from *μονος*, *monos*, one, and *αδελφος*, *adelphos*, a brother, hermaphrodite flowers having the Stamens united by their filaments into one body or brotherhood.

17. Diadelphia, from *δισ*, *dis*, two, and *αδελφος*, *adelphos*, a brother, hermaphrodite flowers having the Stamens united by their filaments into two bodies.

18. Polyadelphia, from *πολυς*, *polus*, many, and *αδελφος*, *adelphos*, a brother, hermaphrodite flowers having the Stamens united by their filaments into three or more bodies.

19. Syngenesia, from *συν*, *sun*, together, and *γενεσις*, *genesis*, generation, hermaphrodite flowers having their Stamens united by their anthers (seldom by their filaments), into a cylinder.

20. Gynandria, from *γυνε*, *gune*, a female, and *ανηρ*, *aner*, a male, hermaphrodite flowers having the Stamens sitting on the pistillum, or on an elongated receptacle.

21. Monæcia, from *μονος*, *monos*, one, and *οικια*, *oikia*, a house. Male and female flowers on the same plant.

22. Diæcia, from *δισ*, *dis*, two, and *οικια*, *oikia*, a house. The male flowers produced on a separate plant from the female, or the Stamens growing on one plant, and the Pistil on another.

23. Polygamia, from *πολυς*, *polus*, many, and *γαμος*, *gamos*, marriage, hermaphrodite and also male or female flowers on the same plant.

24. Cryptogamia, from *κρυπτος*, *cryptos*, hidden, and *γαμος*, *gamos*, marriage, the fructification hidden within the fruit, produced in some unusual manner, or no visible Stamens.

The first 20 Classes, are hermaphrodite flowers, or having Stamens and Pistil in one flower. The first 11, depend on number; only the 12th and 13th Classes, depend on number and insertion; the 14th and 15th on number and equality; the 16th, 17th, 18th

and 19th on connection ; the 20th on insertion only ; the 21st, 22nd and 23rd on situation ; and the 24th on absence.

An ORDER is the second division in the system, and in the first thirteen Classes from Monandria to Polyandria, is denominated from the number of Pistils; the greek numerals *μονος*, *monos*, *δισ*, *dis*, *τρις*, *treis*, &c. are compounded with the word *γυνή*, *gune*, a female, forming the terms Monogynia, Digynia, Trigynia and so on to Polyginia, one, two, three, and so on to many Pistils. In numbering the Pistils, count from the bottom of the styles ; but if the styles are wanting, the calculation is made from the numbers of stigmas.

The 14th Class Didynamia, has the following orders,

Gymnospermia, from *γυμνος*, *gumnos*, naked, and *σπέρμος*, *spermos*, a seed, having the seeds naked, and contained in the bottom of the Calyx.

Angiospermia, from *ανγίος*, *angios*, a covering, and *σπέρμος*, *spermos*, a seed, having the seeds covered or contained in a pericarp.

The 15th Class Tetradynamia, contains two orders,

Siliculosa, seeds in a small, short, or round pod.

Siliquosa, seeds in a long slender pod.

The 16th, 17th and 18th Classes, Monadelphia, Diadelphia and Polyadelphia, take the names of their orders from the number of stamens, as, Pentandria, Decandria, Polyandria, &c. according to their number.

The 19th Class, Syngenesia, contains six orders, viz.

1. Polygamia equalis, consists of many florets or little flowers, all of which have both Stamens and a Pistil. It is called *æqualis* or equal because the Polygamy is equal over the whole flower.

2. Polygamia Superflua; the hermaphrodite flowers in the centre producing perfect seed, the female flowers likewise in the circumference producing perfect seed. It is called Superflua, or Superfluous, as perfect seed is capable of being produced by the hermaphrodite flowers in the centre without the concurrence of the female flowers in the circumference.

3. Polygamia Frustranea, when the hermaphrodite flowers in the centre produce perfect seed, but the flowers which form the circumference produce no perfect seed. It is therefore called frustranea, as the flowers in the circumference appear to answer no purpose in the production of the seed.

4. Polygamia Necessaria, when the hermaphrodite flowers in the centre produce no seed ; but the female flowers in the circumference produce perfect seed. It obtains the name of necessaria, from the flowers in the circumference being Necessary to the production of perfect seed.

5. Polygamia Segregata, when the florets are furnished with partial calices or cups, inclosed within one common calyx. It is called Segregata, the florets being separated from one another by the partial calices.

6. Polygamia Monogamia contains flowers which are simple and no way compounded; which is implied by the term Monogamia.

The 20th Class, Gynandria, takes the names of its orders from the number of the Stamens, as Diandria, Triandria, Pentandria, &c.

The 21st Class, Monæcia, takes its first eight orders from the numbers of the Stamens, and has also three other orders, Monadelphia, Filaments united, Syngenesia, Anthers united, and Gynandria Stamens, growing out of the Pistil.

The 22nd Class, Diæcia, takes the names of ten orders from the number of Stamens, has also four other orders, Monadelphia, Polyadelphia, Syngenesia, and Gynandria; which terms have already been explained.

The 23rd Class, Polygamia, contains three orders, Monæcia and Diæcia already explained, and Triæcia, which signifies Hermaphrodite, male and female flowers growing separately on three distinct plants of the same species, as in Fig-tree, (*Ficus*).

The 24th Class, Cryptogamia, contains four orders,—the Ferns, (*Filices*), the Mosses, (*Musci*), the Sea Weeds, (*Algæ*), and the Mushrooms or Funguses, (*Fungi*).

The further divisions of Plants are into GENERA and SPECIES, which gives them their generic and specific names. And also a further division, called a variety, which, however, is generally more regarded by Florists than Botanists, as it is frequently the effect of accident or culture, but may be produced by the application of ripe Pollen of different flowers to the stigma of others.

EXPLANATION OF PLATE I.

HABIT AND CHARACTERISTIC APPEARANCE OF PLANTS.

CLASS I. MONANDRIA.

FIG. 1. Indian Shot, (*canna indica*), ord. Monogynia, n. o. Scitamineæ. Herbaceous; nat. both Indies. Called also *Arundo Indica*, *Cannacorus*, &c. Span. *Caná de Indias*, Ital. *Canna d' India*.

2. Indian Arrow Root, (*maranta arundinacea*), ord. Monogynia, n. o. Scitamineæ. Herbaceous; nat. South America and West Indies: called also by the Indians, *Toulola* and *Agutiguepa*, sometimes *Sagittaria Alexipharmica*; Span. *Saeta-Raiz*; French, *Racine à fleche*, from curing wounds made by poisoned arrows.

CLASS II. DIANDRIA.

3. Wild Clary, (*salvia sclarea*), ord. Monogynia, n. o. Asperifoliæ. Herbaceous; nat. Jamaica; Fr. *Sauge sauvage*; Ital. *Clarea*; Span. *Salvia sivestre*.

4. Jamaica Vervain, (*verbena Jamaicensis*), ord. Monogynia, n. o. Asperifoliæ. Herbaceous; nat. both Indies; Fr. *Vervaine de Jamaïque*; Ital. *Verbena*; Span. *Verbena*.

CLASS III. TRIANDRIA.

5. Sugar Cane, (*saccharum officinarum*), ord. Digynia, n. o. Gramina. Herbaceous; nat. both Indies; Fr. *Canne*; Ital. *Canna de zucchero*; Span. *Caná de azucár*.

6. Bahama Grass, (*panicum bahamensis*), ord. Digynia, n. o. Gramina. Herbaceous; nat. Bahama Islands, (a thick matted short grass, fit for lawns, and grass plots), Ital. *Yerba*; Span. *Erba*; Fr. *Herbe*.

7. Tamarind Tree, (*tamarindus indicus*), ord. Monogynia, n. o. Multisiliquosæ. Arborescous; classed by some *Monodelphia*, *Triandria*; nat. both Indies; Fr. *Tamarin*; Ital. *Tamarindo*; Span. *Tamarindo*.

8. Guinea Grass, (*panicum guineensis*), ord. Digynia, n. o. Gramina. Herbaceous; nat. Guinea; grows freely and plentifully in the West Indies, and is the principal food for horses and cattle.

9. Scotch Grass, (*panicum latifolium*), n. o. Gramina. Herbaceous; nat. Barbadoes; grows in swampy places, and is a good substitute for Guinea Grass in dry weather.

10. Adrue, (*cyperus articulatus*), ord. Monogynia, n. o. Calamariæ. Herbaceous; nat. Jamaica; is aromatic and valuable for its property of repressing vomitings.

CLASS V. PENTANDRIA.

11. Sweet Potatoes, (*solanum batatas*), ord. Monogynia, n. o. Luridæ. Herbaceous; nat. Peru; Fr. *Pomme de terre*; Ital. *Pomo di terra*; Span. *Patata*; a sweet esculent root, forming a principal article of food among the negroes.

12. Star Apple, (*chrysophyllum cainito*), ord. Monogynia, n. o. Dumosæ. Arboreous; nat. West Indies, Span. *Estrella*; bears a purple fruit, containing a sweet luscious pulp.

13. Coffee Tree, (*coffea arabica*), ord. Monogynia, n. o. Stellatæ. Shrubby; nat. Arabia and West Indies; Fr. *Cafier*; Ital. *Caffè*; Span. *Café*. The species containing one seed, and two seeds in a berry, grow freely in the West Indies; the former is the most rare.

CLASS VI. HEXANDRIA.

14. Pine Apple, (*bromelia ananas*), ord. Monogynia, n. o. Coronariæ. Herbaceous; nat. both Indies; Fr. *Ananas*; Ital. *Pina*; Span. *Ananás*.

15. American Aloe, (*agave vivipara*), ord. Monogynia, n. o. Coronariæ. Herbaceous; nat. South America; Fr. Aloés; Ital. Aloé; Span. Aloë.

16. Red Lily, (*amaryllis coccinea*), ord. Monogynia, n. o. Spathacæ, Herbaceous; nat. West Indies; Fr. Lis Rouge; Ital. Giglio Rosso; Span. Lirio Loxo.

17. Oyster Plant, (*tradescantia*), ord. Monogynia, n. o. Spathacæ. Herbaceous; nat. West Indies and Mexico.

CLASS IX. ENNEANDRIA.

18. Cinnamon Tree, (*laurus cinnamomum*), ord. Monogynia. Arboreous; nat. Ceylon; Fr. Cannelier; Ital. Cinnamomo; Span. Arbol de la Canela.

19. Yellow Hogplum, (*spondias myrobalanus*), ord. Trigynia, n. o. Pomacæ. Arboreous; nat. West Indies; Fr. Prune; Ital. Prugnola; Span. Ciruelo.

CLASS X. DECANDRIA.

20. Occidental Cassia, (*cassia occidentalis*), ord. Monogynia. Herbaceous; nat. West Indies; Fr. De la Casse; Ital. Cassia.

21. Common Cashew Nut, (*anacardium occidentale*), ord. Monogynia, n. o. Holeracæ. Arboreous; nat. both Indies; Fr. Cachou; Ital. Casciù; Span. Bellota de acajou.

CLASS XI. DODECANDRIA.

22. Mangrove, (*rhizophora mangles*), ord. Monogynia, n. o. Holeracæ. Arboreous; nat. West Indies; the plate represents the manner in which the Oysters attach themselves to the branches which hang down in the salt water. It is called by the Indians Kandel.

CLASS XII. ICOSANDRIA.

23. Melon Thistle, (*cactus melocactus*), ord. Monogynia, n. o. Succulentæ. Herbaceous; nat. West Indies; Fr. Melon-chardon; Ital. Mellon-cardone; Span. Cardon cabezado o melon de monte.

24. Four-sided Torch Thistle, (*cactus tetragonus*), ord. Monogynia, n. o. Succulentæ. Herbaceous; nat. West Indies and South America; Span. Cirio.

25. Cochineal Indian Fig, (*cactus cochinillifer*), ord. Monogynia, n. o. Succulentæ, Herbaceous; nat. South America and West Indies; Span. Heguera de Indias; fruit, tuna.

CLASS XIII. POLYANDRIA.

26. Mammee Apple, (*mammea Americana*), ord. Monogynia, n. o. Dumosæ. Arboreous; nat. Jamaica; Fr. Mammé; Ital. Mela Mamea.

27. Cashaw, (*acacia*), ord. Monogynia, n. o. Lomentacæ. Arboreous; nat. West Indies; Fr. Acacia; Ital. Acazia arborello espenoso poblado de ramos; Span. Acacia. The Gum Arabic, (*mimosa nilotica*), is very similar in its manner of growth, and thrives very well in Jamaica; Span. Arbol y goma de Egypto.

28. Sweet Sop, (*annona squamosa*), ord. Poligynia, n. o. Coadunatæ. Arboreous; nat. South America and West Indies; Fr. Cheremoye.

29. Sour Sop, (*annona muricata*), ord. Poligynia, n. o. Coadunatæ. Arboreous; nat. West Indies.



EXPLANATION OF PLATE II.

HABIT AND CHARACTERISTIC APPEARANCE OF PLANTS.

CLASS XIV. DIDYNAMIA.

FIG. 30. Narrow-leaved Calabash, (*crescentia cujete*), ord. Angiospermia, n. o. Putamineæ. Arboreous; nat. Jamaica; Span. Calabaza, arbol de America con cuyas cascarras hacen los Negros tazas para beber, y instrumentos de Musica.

31. Spear-leaved Oily Pulse, (*sesamum indicum*), ord. Angiospermia, n. o. Luridæ. Herbaceous; nat. East Indies; thrives well in Jamaica. Ital. Sesamo o giuggelono.

CLASS XVI. MONADELPHIA.

32. Five-leaved Silk Cotton Tree, (*bombax ceiba*), ord. Polyandria, n. o. Columniferæ. Arboreous; nat. both Indies; Fr. Coton a soie; Ital. Coton di seta.

33. Red Sorrell, (*hibiscus sabdariffa*), ord. Polyandria, n. o. Columniferæ. Herbaceous; nat. both Indies; Fr. Oseille Rouge; Ital. Acetosa, Span. Acedera.

CLASS XVIII. POLYADELPHIA.

34. Chocolate Nut Tree, (*theobroma cacao*), ord. Decandria, n. o. Columniferæ. Shrubby; nat. South America; Fr. Cacao; Ital. Cacao.

35. Forbidden Fruit, (*citrus decumana*), ord. Icosandria, n. o. Bicornes. Arboreous; nat. both Indies; Ital. Spezie de metanancia; Span. Espezie de naranjas.

CLASS XX. GYNANDRIA.

36. Esculent Coco, (*arum esculentum*), ord. Polyandria, n. o. Piperitæ. Herbaceous; nat. both Indies. This root is a valuable article of food for the negroes.

CLASS XXI. MONÆCIA.

37. Common Indian Corn, (*zea mays*), ord. Triandria, n. o. Gramina. Herbaceous; nat. America; Fr. Maïs; Ital. Miglio; Span. Trigo de India.

38. Bread Fruit Tree, (*artocarpus incisa*), ord. Monandria, n. o. Paniferæ. Arboreous; nat. Otaheite, and thrives well in the West Indies. The fruit baked is very similar to new bread.

39. Red Colilu, (*amaranthus sanguineus*), ord. Pentandria, n. o. Holoraceæ. Herbaceous; nat. both Indies; Fr. Epinards; Ital. Spinace; Span. Espinaca.

40. Bitter Cassada, (*jatropha manihot*), ord. Monadelphia, n. o. Tricoccæ. Herbaceous; nat. South America. The fresh root of this species is poisonous, but when the juice is expressed, makes most excellent bread. The roots of the Sweet Cassada may be eaten boiled or roasted.

42. Cocoa Nut Tree, (*cocos nucifera*), of the order Palmæ; nat. both Indies; Fr. Noix de Cocoa; Span. Coco. The plate represents the manner in which a negro will ascend a tree a hundred feet high to gather the nuts.

43. Pumpkin Gourd, (*cucurbita pepo*), ord. Syngenesia, n. o. Cucurbitaceæ. Herbaceous; nat. both Indies; Fr. Citrouille; Ital. Zucca; Span. Calabaza.

44. Oil Nut Tree, (*ricinus communis*), ord. Monadelphia, n. o. Tricoccæ. Shrubby and Arboreous; nat. both Indies; Ital. Palma christi; Span. Palma christi.

CLASS XXII. DIÆCIA.

45. Esculent Yarn, (*dioscorea sativa*), ord. Hexandria, n. o. Sarmentaceæ. Herbaceous; nat. both Indies. This root is one of the best of the bread kind or substitutes for bread.

46. Jamaica Pepper, (*myrtus pimento*), class Icosandria; ord. Monogynia, n. o. Hesperideæ. Arboreous; nat. Jamaica; Fr. Pimente; Ital. Pepe di Jamaica; Span. Pimenta de la Jamaica.

CLASS XXIII. POLYGAMIA.

47. Guinea Corn, (*holcus sorghum*), ord. Monœcia, n. o. Gramina. Herbaceous; nat. both Indies. Called also Indian Millett; Fr. Bled des Indes; Span. Mijo d' India.

48. Indian Jack Fruit Tree, (*artocarpus integrifolia*), ord. Monandria. Arboreous; nat. East Indies; thrives well in Jamaica; the fruit which grows to an immense size is born on the trunk and branches, and the seeds when roasted, taste like chesnuts.

49. Plantain Tree, (*musa paradisaica*), ord. Monœcia, n. o. Scitamineæ. Herbaceous; nat. both Indies; Fr. Plantain; Span. Platano, arbol que se cria in las Indias occidentales de mediana corpulenzia y cuya fruta se come. This is one of the best and most generally used of the bread kind, the fruit being boiled, baked, or roasted.

50. Common Papaw Apple, (*carica papaya*), class Diœcia, ord. Decandria. Herbaceous, the stalk not being solid; it grows to the height of thirty feet; nat. both Indies; Span. Papayo.

51. Palmetto Thatch, (*chamærops palmetto*), class Palmæ; so called from its general use for thatching negro houses; Fr. Palmette; Ital. Palmetto.

52. Mango Tree, (*mangifera*), classed by some Pentandria Monogynia, n. o. Pomaceæ. Arboreous; Fr. Mangoustan; Ital. Mango spezzia de frutta chi viene dall Indie orientali.

53. Spanish Dagger, (*zamia aculeata*), Palmæ, has stiff sharp pointed leaves.

54. Anchovy Pear, (*grias cauliflora*), class Polyandria; ord. Monogynia. Arboreous. In this genus the flower and fruit are born on the stem.

55. Abbay Tree or Oily Palm, (*elæis guineensis*), class Palmæ; bears an oily drupe which is eaten boiled.

56. Shews the manner in which the wood ants destroy a tree by making their nests round the trunk, from which they have covered ways leading to other trees or fences, which they destroy by eating the wood, and leaving the bark.



EXPLANATION OF PLATE III.

SEEDS AND PERICARPS, OF THEIR NATURAL SIZE AND COLOUR.

FIG. 1. The capsule of the Indian Shot (*canna Indica*), is prickly on its surface.

2. The seeds of ditto, are black and oval, and sometimes strung by the Negroes for necklaces; they will also kill small birds.

3. The seeds of a species of Tobacco, (*nicotiana jamaicensis*).

4. The seed-vessel and seed of the Wild Tamarind.

5. The bean or cherry of the Coffee, containing two seeds, surrounded by an aril or parchment.

6. The seeds of the Four o'Clock, (*jalappa mirabilis*). These are also strung for necklaces, having a curious black furrowed surface.

7. The seeds of the Goat Pepper (*capsicum*), are kidney-shaped, and when ripe of a yellowish brown.

8. The seeds of the Star Apple, (*chrysophyllum cainito*), are black, with a white mark and pointed at the top.

9. The seeds of the Naseberry, (*sideroxylon*), are black and acuminate.

10. The seed of the Mammee Sapota, (*achras sapota*), has the appearance of a beautiful shell of such hardness and polish, that it is frequently made into a snuff-box after picking out the kernel.

11. The seeds of the Soap Berry, (*sapindus saponaria*), are quite round and of a polished black—they are also frequently strung for necklaces.

12. The seed of the Yellow Nicker, (*guilandina bonduc*).

13. The seed of the Grey Nicker, (*guilandina bonducella*).

14. The seed of the Akee, (*nov gen*), of a polished black.

15. The nut of the Cashew Apple, (*anacardium acajou*), which is fixed on the end of the apple, and has a very acrid oil in the shell, but the kernel, when fresh is as sweet as a walnut, and is also very good, roasted.

The seed of the Horseradish Tree, (*moringa*), which is born in a long pod and furnished with three wings, sheep and goats are very fond of them as food.

17. The seed-vessel of the Lignum Vitæ, (*guaicum officinale*), containing two seeds enclosed in a pulp, which, made into a preserve, has the same virtues as the gum, and in a superior degree.

18. The seed of the Rose Apple, (*eugenia fragrans*), has a strong smell like roses.

19. The seeds of the Barbadoes Pride, (*poinciana pulcherrima*).

20. The seeds of the Mexican Poppy, (*argemone mexicana*),—a few of them smoked in a pipe of tobacco have a powerful narcotic effect.

21. The seed of the Cocoon Antidote Nut, (*fevillea scandens*),—the kernel of this infused in rum is a powerful antidote to poison, and is generally kept ready for use in families.

22 The seed-vessel, and, 23, Seeds of the Gum Arabic, from which the gum exudes, as well as from the trunk and branches.

24. The seed-vessel and seeds of the Arnotto, (*bixa orellana*). The red substance round the seeds forms a pigment or dye of a deep aurora or orange colour, called by the Indians *mucu, roucou*.

25. The seeds of the Sweet Sop, (*annona squamosa*).

26. The seeds of the Musk Ochro, (*hibiscus abelmoschus*), have a powerful musky scent.

27. The seeds of the Sour Sop, (*annona muricata*).

28. The seed-vessel of the Bastard Cedar, (*theobroma guazuma*), is a capsule, contain-

ing many small seeds in different cells; they are frequently given as food to horses, but should be well salted, like Indian corn, or it is said to give them botts.

The seed of Nephritic Tree, (*mimosa unguiscati*), is kidney-shaped, and has a white substance round the lower part, resembling the fat round a kidney. The bark of this tree is reputed by the Spaniards a sovereign remedy in all diseases of the kidneys, ureters and bladder.

30. The seeds of the Chain Cotton, (*gossypium*), are linked together in the form of a chain.

31. The seeds, and, 32, Seed-vessel of the Oily Pulse, or Sesame, (*sesamum Indicum*). They are mucilaginous, and sometimes used in Soup.

33. The seed of the Wild Liquorice, (*abrus precatorius*), frequently used for necklaces by the Negroes.

34. The Pigeon Pea, (*cytisis cajan*), a perennial and shrubby plant. The others are, 35, the Black, 39, the White, 37 and 40, the Speckled, and, 38, the Lady Pea.

36. The seed of the Sand Box, (*hura crepitans*), is of a sweet taste, but poisonous.

41. Pindars, (*arachis hypogæ*), earth nuts, the kernels of which are eaten roasted.

42. The Chocolate Nut, (*theobroma cacao*). The pericarp is a follicle, and the seeds, to the number of twenty or thirty, are fixed along a receptacle in the centre.

43. The seeds of the Orange, (*citrus aurantium*).

44. The seeds of the Shaddock, (*citrus decumana*).

45. The seed-vessel of a sort of short-podded Wild Vanilla, (*epidendrum vanilla*). The seeds are small and shining, and to the number of many thousand in one seed-vessel.

46. The seed vessel of the Screw Tree, (*helicteres*), twisted in a spiral form.

47. The seeds of the Forbidden Fruit, (*citrus medica*).

48. The seed-vessel of the Oil Nut, (*ricinus palma christi*), tricoccus, or containing 3 seeds, 49, from which is boiled or expressed an essential oil, which is a most valuable cathartic, commonly called Castor Oil. Fig. 50, are larger seeds of the same, but it is not ascertained that they yield more oil in proportion to their size.

51. The seeds of the Tomatos, (*solanum lycopersicum*), are grooved and rough round the edge.

52. The seeds of a species of Water Melon, (*cucurbita citrullus*).

53. The Lima Bean, (*phaseolus limensis*), the most delicious bean to be found in Jamaica, but will not thrive without much care.

55. The Sugar Bean, (*phaseolus*), a very good sort, which is common, as is the Scarlet Bean, fig. 55.

57. The Pimento, (*myrtus pimenta*), after it is gathered and dried on barbecues.

58. A few grains of the Guinea Corn, or Indian Millett, (*holcus sorghum*), which grow in a panicle similar to the Guinea Grass, plate 5, fig. 2, and many ears on a stalk.

59. Seeds of the Cerasee, (*momordica balsamina*), the seed-vessel of which being pricked with a pin bursts open with violence, scattering the seeds, which are at first surrounded with a slimy mucus, of a scarlet colour.

60. The seed of the Mahogany, furnished with a thin broad wing; the seed is contained in the lower end.

61. The seed vessel of the Mahogany, (*swietiana mahogoni*), reduced to about half its natural size. The seeds are so imbricated, that when once displaced they cannot be put together again.

62. The Cunep, a fruit of a subacid taste, the pulp of which surrounds the stone, and is enclosed in a thin green shell.

63. The seed-vessel of the Contraryerba, of Yucatan, the seeds being imbedded or inlaid like ivory spots or points, in a thick substance.



EXPLANATION OF PLATE IV.

THE FIGURES IN THIS PLATE ARE OF THE NATURAL SIZE AND APPEARANCE OF THE PLANTS.

CLASS I. MONANDRIA,. ORD. I. MONOGYNIA.

FIG. 1. INDIAN ARROW ROOT, (*maranta arundinacea*), n. o. Scitamineæ; Fr. Racine à fleche; Span. Saeta-Raiz; nat. South America; called by the Indians, Toulola, Aguetigüepa, and sometimes Sagittaria Alexipharmica. This valuable plant is herbaceous, having tapering white roots covered with a thin brown skin, nearly the shape and size of carrots, marked with annular protuberances. The stalks are reed-like, about four feet high bearing at their summits small white flowers; the leaves are oval, acute angled, alternate and when gathered roll up lengthways. Seed vessel roundish, obscurely three-sided. The roots being scraped, washed and pounded, in wooden mortars, and macerated in water, yield a flour of a snowy whiteness, which no worms will touch. Made into a jelly with boiling water, it is a most cordial and nourishing food, that will remain on the stomach when nothing else will; and a pudding made of it, is most excellent for convalescents. It is also used for starch, which is far superior to that made of wheat flour in quality, and one pound is equal to two pounds and a half, of that prepared from wheat; and by its use, immense quantities of wheat might be saved annually. The root may be candied as Eryngo, possessing nearly the same virtues. The fresh expressed juice of the root with water, is a powerful antidote to vegetable poisons (as the Savanna flower), taken inwardly; the bruised root outwardly applied, is a cure for the wounds of poisoned arrows, scorpions, or black spiders, and arrests the progress of Gangrene. It is propagated by cuttings of the roots, and made for sale in considerable quantities in the West Indies, for about a dollar per pound. It has thriven in America, in the states of South Carolina and Georgia, and produced 1840 pounds to the acre; and perhaps would be well worthy attention in the East Indies. That which is sold in the shops, is not always unadulterated, but the genuine affords a larger proportion of mucilage than any vegetable yet discovered. The medical virtues are astringent, cordial, diaphoretic and said by Dr. Barham to be in some degree emenagogue; a decoction of the fresh roots, makes an excellent ptisan in acute diseases. When prepared with milk for children if it ferment on the stomach, the addition of a little animal jelly will prevent it. The following species are natives of or will grow in the West Indies. Wood Arrow Root, (*maranta sylvatica*), Dichotomous, (*maranta dichotoma*).

2. INDIAN SHOT, (*canna indica*), n. o. Scitamineæ; Ital. Canna d'India; Span. Cana de Indias; called also Cannacorus and Arundo Indica Latifolia. This beautiful plant is herbaceous, having large succulent creeping roots of an acrid taste when fresh, the stalks are round and reed-like, about five feet high, but more succulent than arrow root, having oval pointed leaves with marked ribs, running from the foot to the point, sessile and alternate. The stalks are terminated by beautiful large scarlet flowers, succeeded by a prickly pericarp with several black seeds, which will kill small birds. The juice of the root is said by Dr. Barham to be a counter poison, he also attributes virtues to it, mixed with the bruised leaves and water lily, applied as a cataplasm to hard tumours and indurations of the spleen. The following species are natives of or will grow in the West Indies. Scarlet-flowered Indian Shot, (*canna coccinea*), both Indies. Broad-leaved Indian Shot, (*canna patens*), both Indies. Glaucous Indian Shot, (*canna glauca*), South America. Yellow-flowered Indian Shot, (*canna lutea*), East Indies.

CLASS II. DIANDRIA, ORD. I. MONOGYNIA.

JAMAICA VERVAIN, (*verbena jamaicensis*), n. o. Asperifoliæ; Fr. Vervaine; Ital. Ver-

vena; Span. Verbena. This valuable though common plant is herbaceous, and seldom rises more than two feet high; the root is oblong and bitter, the stalk angular, a little hairy and branched, the leaves stand in pairs, oval, veined and notched at the edges. The flower stalk is imbricated, from the squammæ of which arise the flowers, small, blue and scattered at irregular distances. When it is once established it spreads fast. Dr. Barham says, the juice alone, or with Contrayerva infused in wine, is an excellent remedy against dropsies. The expressed juice is given to children as an anthelmintic; and the bruised leaves, with wheat-flour applied as a cataplasm, are useful in swellings of the spleen, (a common disease in the West Indies) and to discuss hard tumours at their commencement.

It is given as a cooling cathartic to children in doses of one or two table spoonfuls of the expressed juice. A decoction of the plant with spikenard is given in dropsies, and a table spoonful of the juice, four successive mornings, is considered by the Negroes, (with whom Vervain is a favourite remedy,) as an effectual deobstruent and emenagogue. The expressed juice with water is also very good for sore watery inflamed eyes. Vervain tea is likewise frequently drunk as a febrifuge and corroborant.

The following species are natives of warm climates.

Indian Vervain,	(<i>verbena indica</i>),	nat. East Indies.
Changeable,	(<i>v. mutabilis</i>),	South America.
Buenos Ayres,	(<i>v. bonarensis</i>),	Buenos Ayres.
Panicled,	(<i>v. paniculata</i>),	Ditto.
Betony-leaved,	(<i>v. orubica</i>),	South America.
Mexican,	(<i>v. mexicana</i>),	Mexican.
Trailing,	(<i>v. prostrata</i>),	South America.
Upright,	(<i>v. stricta</i>),	Ditto.
Three-leaved,	(<i>v. triphylla chili</i>),	Ditto.

JAMAICA WILD CLARY, (*salvia sclarea*), n. o. Asperifoliæ; Fr. Sauge sauvage; Span. Salvia silvestre; nat. West Indies. This plant is common in Jamaica, and grows nearly in the same manner and about the same height as vervain, having ovated rough leaves, and the extremity of the stalk revolute or turned back like the sting of a Scorpion. The flowers are small, numerous and situated near the top of the stalk, of a light blue colour.

It is a remedy much in use among the Negroes, who consider it as cleansing, cooling and consolidating to ulcers and sore legs, to which they are very subject. It is also used in inflammations of the eyes, and the leaves boiled with Cocoa Nut Oil, are said by Dr. Barham to cure the stings of scorpions. This with the vervain are two of the ingredients to make the aromatic warm bath, a remedy which deserves to be in more general use. The garden sage, a species of this genus, made into a decoction, sweetened and acidulated with lime juice, is used as a cooling drink in fevers. The virtues of the sage are stimulant, carminative, tonic and aromatic.

Indian Sage,	(<i>salvia indica</i>),	nat. India.
Dominican,	(<i>s. dominica</i>),	West Indies.
Various-leaved,	(<i>s. heterophylla</i>),	Ditto.
Mexican Sage,	(<i>s. formosa</i>),	Peru.
Hairy-stalked,	(<i>s. pseudo coccinea</i>),	South America.
Bitter,	(<i>s. amara</i>),	Mexico.
Violet-flowered,	(<i>s. amœna</i>),	West Indies.
Germander-leaved,	(<i>s. chamædrys</i>),	Mexico.
Linear-leaved,	(<i>s. linearis</i>),	Mexico.
Broad-leaved,	(<i>s. latifolia</i>),	Yucatan.



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The following PLANTS of the WEST INDIES; &c. (inter alia) will be noticed.

Egg Plant	Tuberose	Blakea	Volkameria	Vanilla	China Root	Candle Wood
Coral Pepper	Mammee Sapota	Canella Alba	Chaste Tree	Granadilla	Rajania	Prickly Yellow
Bird Pepper	Bully Tree	Garlick Pear	Columna	Passion Flower	Yam	Lemon Grass
Bell Pepper, &c.	Rice	Purslane	Wild Mustard	Birth Wort	Velvet Leaf	Manchineel
Spanish Elm	Water Plantain	Triumfetta	Kale	Wake Robin	Papaw Tree	Milk Wood
Currant Tree	Guinea-hen Weed	Spurges	Water Cresses	Dragon	Juniper Cedar	Milk Wort
Star Apple	Horse Chesnut	Pope's Head	Radish	Pothos	Red Cedar	Mug Wort
Teak Wood	Akee	Torch Thistle	Cabbage	Withes	Adelia	Nhambi
Iron Wood	Honey Berry	Prickly Pear	Cotton	Eddos	Plantain Tree	Nhandiroba
Gronovia	Lawsonia	Green Withe	Ochroma	Cocoas	Banana	Ortigia
Balsamine	Whortleberry	Gooseberry	Screw Tree	Bread Fruit	Guinea Corn	Paica Julla
Mango Tree	Clove Strife	Cochineal Plant	Silk Cotton	Jack Fruit	Balsam Tree	Palqui
Curcomb	Lagetto Tree	Rose Apple	Sour Gourd	Tripsacum	Nettle Tree	Palqui
Chaff Flower	Buck Wheat	Maiden Plum	Ochro	Jack in a Box	Nephritic Tree	Panke
Grape Vine	Supple Jack	Guava	Mallow	Nettle	Sensitive Plant	Paraguay Tea
Wild Wine	Aramart	Myrtle	Muskochro	Fustie	Cashaw	Sosumber
Savanna Flower	Sea-side Grape	Pimento	Cotton	Mulberry	Gum Arabic	Payco Herba
Red Jasmine	Soap Berry	Pomegranate	Achania	Indian Corn	Ginseng	Peuma
Tabernaemontana	Heart Seed	Peach	Red Sorrel	Amaranthus	Carob Tree	Poquett
Barbadoes Cedar	Cinnamon	Almond	Milk Wort	Colilu	Fig Tree	Sargassa
Winter Cherry	Camphire	Cherry Tree	Wild Liquorice	Wild Tansey	Adder's Tongue	Scammony
Centian	Avocado Pear	Sesuvium	Coral Tree	Canada Rice	Brake	Velvet Leaf
Bastard Ipeca-	Cogwood	Rose	Pigeon Pea	Guetarda	Polypody	Parrot Wood
cuanha	Casia	Strawberry	Bladder Sena	Begonia	Shield Fern	Five-finger
Globe Anaranth	Sweet Wood	Marcgravia	Rest Harrow	Walnut	Maidenhair	Wild Fig
Dichondra	Rhubarb	Caper Tree	Ebony	Dalechampia	Thrinax	Pepper-bush Elder
Eryngo	Hog Plum	Mexican Poppy	Cowhage	Acalypha	Thatch	Otaheitan Plum
Hare's Ear	Mountain Ebony	Mammee Apple	Dogwood	Tree of Life	Fan Palm	Cunep
Samphire	Saphora	Arnotto	Indigo	Liquid Ambar	Cycas	Turkey Weed
Navel Wort	Barbadoes Pride	Santa Maria	Pindars	Cob Nuts	Cocoa Nut	East-India Ebony
Spathelia	Locust Tree	Clove Tree	Crotolaria	Wild Rosemary	Prickly Palm	French Cotton
Tamarisk	Parkinsonia	Garboge	Kidney Bean	Cascarilla	Date Palm	Spanish Needle
Chickweed	Nicker Tree	Parrot Weed	Sweet Pea	Yellow Tree	Caryota	Milk Grass
Hog Gum	Brasiletto	Prickly Cæron	Bastard Cabbage	Cassada	Borassus	Brambas
Holly Rose	Logwood	Pimpernell	Tree	Physic Nut	Cabbage Tree	Betel
Aralia	Lignum Vitæ	Water Lily	False Acacia	Wild Cassada, or	Elate	Burubunny
Wild Cinnamon, or	Bead Tree	Custard Apple	Hedysarum	Belly-ach Weed	Abbay	Cabua
Winter's Bark	Mahogany	Sweet Sop	Chocolate Nut	French Physic Nut	Zamia	Mexican Borage
Pine Apple	Button Flower	Sour Sop	Bastard Cedar	Oil Nut	Hypnum	Calantrillo
Penguin	Bitterwood	Traveller's Joy	Abroma	Omphalea	Byrum	Sorrel of Yucatan
Silk Grass	Caltropes	Savory	Lemon	Manchineel	Mniun	Chamomile of ditto
Water Pine	Melastoma	Scordium	Lime	Sand Box Tree	Marchants	Albahacca
Old Man's Beard	Jussiaea	Mint	Orange	Snake Gourd	Byssus	Peruvian Balsam
Chlorophytum	Horseradish Tree	Horehound, or	Shaddock	Balsam Apple	Mosses	Guayava
Pitcairnia	Nicaragua Wood	Spignel	Forbidden Fruit	Bottle Gourd	Alligator, or Musk	Ortigia
Oyster Plant	Stinking Weed	Lemon Balm	Mandarin Orange	Orange Gourd	Wood	Sisin
Solomon's Seal	Winter Green	Wild Basil	Lettuce	Pumpkin	Anchovy Pear	Chaia
Blood Flower	Wild Indigo	Self-heal	Artichoke	Squash	Angelyn Tree	Chinchivel
Lily Root	Balsam of Capivi	Iron-wort	Saffron	Water Melon	Arraganas	Mexican Mallow
Clammy Cherry	Olive Bark Tree	Wild Hops	Mikania	Musk Melon	Attoo	Kavlyasnic
Amaryllis	Samyda	Calabash	Agrimony	Cucumber	Avens	Doradilla
Garlic	Ringworm Bush	Wild Sage	Eupatorium	Prickly Cucumber	Briar Rose	Oak of Yucatan
Superb Lily	Cane-piece Sensi-	Trumpet Flower	Halbert Weed	Chocho	Cardamum	Makulam
Hypoxis	tive Plant	Sweet Wood	Golden Rod	Ceracee	Centaury	Chiopley
Asparagus	Barbadoes Cherry	White Cedar	Colt's Foot	Wild Cucumber	Coopers' Withe	Orosus
Sempervive	Trianthema	Oily Pulse	Sun Flower	Bread Nut Tree	Gland Flax	Sorille
Aloe	Chaw-stick	Spirit Leaf	Rudbeckia	Cecropia	Green With	Sage of Yucatan
Adam's Needle	Mandarin Orange	Wild Olive	Parthenium	Candleberry Myrtle	Ground Ivy	Tamarind of ditto
Agave	Wood Sorrel	Fiddle Wood	Elephant's Foot	Hemp	Holly Rose	Contrayerva
Naseberry	Poke Weed	Cyrilla	Orchis	Tooth-ach Tree	Lance Wood	Tabasco Tea
Birch Tree	Mangrove	Brunsfelsia	Limodorum	Fingrigo	Liute	&c. &c. &c.
Hillia	Tree Celandine	Jamaica Tea	Nottia	Majoe	Lignum Aloes	

The Cover of the next Number will contain a similar List of the PLANTS of NORTH AMERICA.

N. B. This first Number is of itself, a concise, yet clear and comprehensive Compendium of the Elements of Botany, calculated for the use of Students or as a Class Book for the use of Schools, &c.

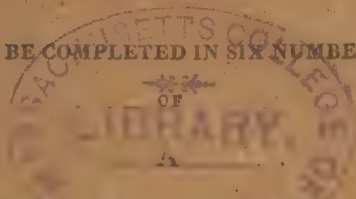
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(TO BE COMPLETED IN SIX NUMBERS)



HORTUS BOTANICUS AMERICANUS;

OR,

COLOURED PLATES

OF

MANY NEW AND VALUABLE PLANTS

OF THE

West Indies and North and South America.

TO WHICH IS ANNEXED,

A CATALOGUE OF THE PLANTS,

(And of many others, Natives of AFRICA and the EAST INDIES,
Which have been, or might be introduced with Advantage into the WEST INDIES,)

WITH CONCISE AND FAMILIAR DESCRIPTIONS OF MANY SPECIES,

Showing their various, common and botanical Names, Places of Growth, Medical Virtues or General Uses,
their Classes and Orders.

Arranged after the Linnæan System.

ALSO

A CONCISE YET COMPREHENSIVE GLOSSARY OF TERMS, PREFIXED
AND A GENERAL INDEX.

By W. J. TITFORD, M.D.

CORRESPONDING MEMBER OF THE SOCIETY FOR THE ENCOURAGEMENT OF ARTS, &c.

The following PLANTS of NORTH AMERICA, &c. (inter alia) will be noticed.

Indian Reed
Arrow Root
Tobacco
Ginseng
Canna
Jasmine
Olive Tree
Snow Flower

Catalpa
Speedwell
Vervain
Water Horehound
Cynila
Oswego Tea
Sage
Collinsia
Pepper
Melithria

Iris
Commelina
Crocus
Cyprus
Club Rush
Cotton Grass
Leersia
Panic Grass
Fox-tail Grass
Sundry Grasses

Rye
Barley
Wheat
Mollugo
Anychia
Lechea
4 Button Wood
Scabious
Houstonia
Ladies Bedstraw

Mitchella
Calliopsis
Great Burnet
Dogwood
Witch Hazel
Holly
Pondweed
Gromwell
Hounds Tongue
Langwort

Comfrey
Borage
American Cowslip
Water Leaf
Loose Strife
Lychnidea
Bind Weed
Worm Grass
Cantua
Ipomæa

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NOTES



THE LINNÆAN

NATURAL METHOD OF CLASSIFICATION.

(So called in Contradistinction to the Artificial or Sexual Method), arranges Plants according to their Appearance, Virtues and Uses, conformably to the affinities established by Nature, and is highly valuable, useful and interesting.

ORDER 1. *Palmæ*, Palms, are perennial, of the Shrub or tree kind with simple stems, bearing fronds, or fan leaved; and varying in height from two to two hundred feet. They generally have a branched spathe or sheath called a Spadix, as in Abbay, plate 2, fig. 55, and bear a fruit of the berry or nut kind, fit for food. The lofty are properly palms, as Cocoa Nut, plate 2, fig. 42, and the low, Palmetos, as Thatch, plate 2, fig. 51.

2. *Piperitæ*, (from Piper, Pepper), are perennial and mostly herbaceous, the roots when fresh, acrid, and the general character of the plants, astringent, as Dumb Cane, Arum, and Indian Betel.

3. *Calamariæ*, (Reed like), the bottom of the leaf where it embraces the stalk undivided, example Adrue, (*Cyperus*), plate 1, fig. 10, and the mode of flowering generally a spike, their virtues and uses nearly the same as the following,

4. *Gramina*, (Grasses), herbaceous plants, sometimes creeping, at others upright, with fibrous roots mostly contained in Class Triandria Ord Digynia. All these plants are wholesome and valuable food, as Guinea Grass, plate 1, fig. 8. Bahama Grass, fig. 6. Scotch Grass, fig. 9, and Sugar Cane, fig. 5, also Indian Corn, plate 2, fig. 37, and Guinea Corn, fig. 47.

5. *Tripetaloidæ*, (Three Petalled), nearly allied to the Grasses, as Arrowhead and Water Plantain.

6. *Ensatae*, (Sword Shaped), a beautiful family of herbs, allied to the Liliaceous plants with fleshy roots and simple stalks, as Saffron and Flower de Luce.

7. *Orchideae*, (from Orchis), plants with fleshy knobbed roots, leaves spathaceous, flowers produced in a spike or panicle; plants of this order, are generally considered Strong Aphrodisiacs, Example Vanilla, plate 3, fig. 45, and Bee Orchis, Ophrys.

8. *Scitamineae*, (from Scitamentum agreeable food), beautiful plants, natives of Tropical Climates, and furnishing exquisite fruits, some have a hot pungent taste, and the roots of many are resinous, example Indian Shot, plate 1, fig 1. Arrow root, plate 2 fig 1. Plantain Tree, plate 2, fig. 49.

9. *Spathaceae*, (Sheath like). The flowers protruded from a sheath, as in Red Lily, plate 1, fig. 16, and Oyster Plant, fig. 17.

10. *Coronariae*, (Crowned). Herbaceous plants with fleshy roots, (without a stem in some) the flowers seated on the top of the flower stalk; the roots generally innocent except such as have a heavy nauseous smell. Example of this order, American Aloe, plate 1, fig. 15, Pine Apple. fig. 14.

11. *Sarmentosae*, (Shooting stemmed). Plants with climbing stems and branches, supporting themselves on neighbouring bodies, as Velvet Leaf and Yams, plate 2, fig. 45.

12. *Holeraceae*, (Pot Herbs). Plants used for the table, and in domestic œconomy, and the fruit esculent, as Cashew Nut, plate 1, fig. 21. Beet, Cinnamon, plate 1, fig. 18. Colilu, plate 2. fig. 39. Those used for seasoning, may be called Condiments, Condimenta.

13. *Succulentae*, (Succulent), flat, fleshy and juicy plants, of which the greater part, are evergreen. In their qualities astringent and refreshing, as Melon Thistle, plate 1, fig. 23. Torch Thistle, fig. 24. Cochineal plant, fig. 25. Hydrangea.

14. *Gruinales*, (from Grus, a Crane). Geraniums Cranes Bill, and other plants nearly similar, as Flax and Wood Sorrell.

15. *Inundatae*, (growing in the water), aquatic and herbaceous plants, as Pondweed, Lily of Lake Champlain.

16. *Caliciflorae*, plants having the stamens inserted into the Calyx, of the Shrub and Tree kind, and generally astringent, as in Wild Olive, *Eleagnus*.

17. *Calycanthemae*, (from Calyx and *ανθος*, *anthos*, a flower), having the Corolla and Stamina inserted in the Calyx; these plants also are frequently of an astringent quality, as American Wild Gooseberry, and Tree Primrose.

18. *Bicornes*, (Two Horned). Plants in which the anthers have the appearance of two horns, of the shrub and tree kind, and possessing astringent qualities, example American Honey-suckle, Bilberries, Mangostan, Forbidden Fruit, plate 2, fig. 35. and Indian Date Plum.

19. *Hesperideae*, (Golden Fruited). Plants of the shrub and tree kind mostly evergreen, and bearing esculent berries, as Guava, Rose Apple, and Pimento, plate 2, fig. 46.

20. *Rotaceae*, (Wheel-shaped), the petal in the shape of a wheel and no tube, as Pimpernell and Gentian.

21. *Preciæ*, (Early), plants that flower early, as Primrose and Sow Bread.
22. *Carophyllatæ*, (from the Genus *Carophyllus*). The plants of this order are innocent, have bitter seeds, attenuating and detersive, Examples Carnation, Pink, and Soap Wort.
23. *Trihilatæ*, (Three-eyed), plants with three seeds marked distinctly with a hilum or eye, as Barbadoes cherry, Chaw Stick, and Maple.
24. *Corydales*, (Helmeted), from *κορυς*, *corus*, a helmet. Plants with irregular Corols, somewhat resembling a helmet, as Balsamine, Fumatory.
25. *Putamineæ*, (Hard Shelled), plants having a fleshy seed vessel covered with a woody shell, as Calabash Tree, plate 2, fig. 30. Garlick Pear.
26. *Multisiliquæ*, (Many Podded), or rather having many seed vessels of the Capsular kind, and numerous seeds. The qualities of some, are Acrid and Purgative, example Pheasants Eye, and Virgins Bower.
27. *Rhædeæ*, (from *Rhæas* Red Poppy), plants emitting a milky juice, and of a narcotic quality, but externally applied, corrosive, as Mexican Poppy, plate 9, fig. 1. also May Apple and Puccoon.
28. *Luridæ*, (Lurid), plants whose appearance is ominous and indicating something noxious in their quality, generally of the fifth Class, as Night shade, or of the masqued tribe. The plants have an insipid taste, a nauseous smell, and are frequently poisonous, example Thorn Apple, Mullein and Deadly Night shade.
29. *Campanacææ*, (Bell-shaped), plants with bell-shaped flowers—many plants of this order abound with a milky juice, and it furnishes valuable medicines and articles of food, Ex. Quamoclit, American Lobelia, Jalap, Sweet Potatoe, plate 1, fig. 11.
30. *Contortæ*, (Twisted), plants having petals bent to one side—generally abound in milky juice, and are of a poisonous quality, as South Sea Rose, plate 5, fig. 5. Bastard Ipecacuanha, plate 7, fig. 1. Periwinkle and Red Jasmine.
31. *Vepriculæ* (Briar-like), plants resembling a Bramble, as Leatherwood and Meze-reon.
32. *Papilionacææ*, (Butterfly-shaped), plants with papilionaceous flowers, of which numerous family, are all leguminous plants. Many of these plants are fit for food; some emollient, vulnerary and astringent, examples Wild Liquorice, Dogwood Tree, Indigo, Pea, Bean, &c.
33. *Lomentacææ*, (Colouring), plants furnishing useful and beautiful tinctures used in dying, as Brazil Wood, Logwood, Locust Tree, plate 7, fig. 8, Barbadoes Flower Fence, fig. 7, Nickertree, &c.
34. *Cucurbitacææ*, (Gourd-like), these plants generally have Tendrils and climb, as in Granadilla, Antidote Cocoon, Tomatos, or run along the ground as Melons, plate 2, fig. 43.
35. *Senticosæ*, (Bramble-like), resembling a bramble in their port and appearance, as the Rose, Raspberry, and Strawberry, their fruits are cooling, leaves vulnerary, and roots diuretic.

36. *Pomaceæ*, (from Pomum an Apple), plants having a pulpy eatable fruit, of the Apple, Berry, or Cherry kind, frequently subacid, mostly shrubs and trees, as Medlar, Apple, Currant, Hog Plum, plate 1, fig. 19, Pomegranate, Cherry, and Mango, plate 2, fig. 52.

37. *Columniferaæ*, (Column bearing), plants whose Stamens and Pistil, have the appearance of a column or pillar in the middle of the flower, as plants of the Monadelphia Class, and Mallow Tribe; the Silk Cotton, plate 2, fig. 32, and Musk-ochro furnish beautiful specimens of this Order, the plants are mucilaginous and many excellent food, as Common-ochro, other examples are Arnotto, Tea Tree, and Skrew Tree, Jews Mallow and Chocolate Nut, plate 2, fig. 34.

38. *Tricoccæ*, (Three Berried), having a three cornered capsule with three berries and three seeds, as Papaw, Carica, plate 2, fig. 50, Cassava, fig. 40, Oil Nut, fig. 44.

39. *Siliquosæ*, (Podded), plants having a pod for their seed vessels, as Cabbage, Mustard, Shepherds Purse.

40. *Personatæ*, (Masqued), having a gaping petal, as Sesame, or Oily Pulse, plate 9, fig. 7, Trumpet Flower, Fiddle Wood, and Garden Balsam.

41. *Asperifoliæ*, (Rough Leaved), principally herbaceous plants, their virtues cordial, vulnerary, and astringent, as Wild Clary, plate 4, fig. 4. Borage, Cornfrey, &c.

42. *Verticillatæ*, (Whorled), synonymous with Lip Flowers, herbaceous vegetables with four seeds, and the flowers placed in Whorls along the branches. Their virtues are fragrant, penetrating and cordial, as Jamaica Spikenard, Lavender, Orange Balm, Mint, &c.

43. *Dumosæ*, (Bushy), plants thickly and irregularly set with branches, as New Jersey Tea, Naseberry and Star Apple, plate 1, fig. 12, and Mammee Apple, fig. 26. The berries of some, are esculent, and the flowers of many, cathartic. This order contains also Stafftree, Poison Sumach, Spindle Tree, Elder, &c.

44. *Sepiariæ*, (Hedge plants), a beautiful tribe of woody plants proper for hedges, of the shrub and tree kind, as Lilac, Horse Radish Tree, Logwood, Arabian Jasmine Privet and Olive.

45. *Umbellatæ*, (Umbelled), the plants of this order that grow in dry places are sudorific and cordial, as Parsley, Coriander, Cummin and many plants of Class Pentandria, Ord. Digynia, but growing in wet places they are poisonous, as Hemlock, Fools Parsley, &c.

46. *Hederaceæ*, (Ivy-like), creeping plants similar to ivy, parasitic or attaching themselves to others, as Dodder, Wild Grape, Ginseng and Tooth Ache Tree.

47. *Stellatæ*, (Starred), plants with two naked seeds, the leaves and flowers disposed round the stem in form of a star, as in Coffee, plate 1, fig. 13, Wormgrass and Dogwood.

48. *Aggregatæ*, (Aggregate), a number of small flowers growing together in a bunch, as Honeysuckle, Button Tree and Mistletoe.

49. *Compositæ*, (Compound), as Dandelion, Scabious, &c.

50. *Amentaceæ*, (Amentaceous), catkin bearing plants, as Willow, Walnut, Juniper, Arbor Vitæ, Sand Box Tree, &c.

51. *Coniferæ*, (Cone bearing), bearing the seeds in a cone or strobile, as Pitch-pine, Cedar, and Yew: they generally produce a resinous or gummy substance, with an agreeable smell, as Gum Sandarach; and the Larches, Pines and Firs, also yield Turpentine, &c.

52. *Condunatæ*, (Joined together), the seed vessels numerous and slightly attached together. This order furnishes a beautiful collection of exotics with an aromatic smell and bitter bark, as the Custard Apple, Tulip Tree and Magnolia.

53. *Scabridæ*, (Rugged), plants whose leaves are much rougher than *asperifoliæ*. These plants are generally astringent, bitter and styptic,—example, Hemp, Contrayerva, plate 4, fig. 3, Fig, Hop, Mulberry and Elm.

54. *Miscellaneæ*, (Miscellaneous), not connected by numerous relations, as Duck-meat, Globe Amaranth, Pokeweed, Side Saddle Flower, and Mahogany.

55. *Filices*, (Ferns), plants bearing flower and fruits on the back of their leaves or stalk; their virtues are opening and attenuating.

56. *Musci*, (Mosses), are in general cathartic, and sometimes emetic.

57. *Algæ*, (Flags), plants whose root, leaf and stem are all one, as the Sea Weeds.

58. *Fungi*, (Mushrooms), either creeping or erect, and seldom branched; externally used, they are astringent and styptic; as a food they should be used very cautiously, many being poisonous.

59. *Dubii Ordinis*, (Doubtful), those plants which cannot be arranged under any of the above orders.

Many plants of the order of Grasses produce sugar, and might thence be called *Sacchariferæ*, as the Sugar Cane, Indian Corn, Guinea Corn; the *Acer Saccharum* of North America, also yields Sugar in considerable quantities.

Some plants also from the peculiarity of their fruit, which serves as a good substitute for Bread, might with propriety be called *Paniferæ*, as the Bread Fruit, plate 2, fig. 38. the Plantain, fig. 49.

CLASSIFICATION

OF THE

MEDICAL VIRTUES OF PLANTS.

I. GENERAL STIMULANTS.

DIFFUSIBLE STIMULANTS. Narcotics, (*narcotica*), from *ναρκαο*, *narkao*, to render torpid, diminish the action of the system, relieve pain, and procure sleep, as poppy, thorn apple, tobacco, spotted hemlock, wild carrot, mountain laurel, broad-leaved laurel, azalea, mountain tea, black henbane, wolf's bane, deadly nightshade, hemlock, foxglove, Indian berries, camphor, prickly yellow wood, hops, ginseng, lettuce.

Antispasmodics, (*antispasmodica*), from *αντι*, *anti*, against, and *σπασμος*, *spasmos*, a spasm, allay pains and spasm, as Mexican tea, clary, asafætida, skunk cabbage, Indian turnip, camphor, cajeput, valerian, saffron, garlick.

PERMANENT STIMULANTS. Tonics, (*tonica*), from *τονωω*, to strengthen, primarily give strength to the system, as Peruvian bark, Jamaica bark, English oak bark, white oak, bitter wood, centaury, boneset, yellow root, columbo, gentian, parsley-leaved yellow root, centry, fraseria-caroliniensis, wild cherry tree, sassafras, persimmon, dogwood, rose willow, horse chesnut, beaver tree, tulip tree, aspen, snake root, alder, halbert weed, chamomile, wild horehound, buckthorn, poplar, macary bitter, bully tree, hops, quassia, contrayerva, locust tree, shrub yellow root, yarrow.

Cordials, restore and invigorate, as tacamahaca, sweet gum, abanga, arnotto, caranna, coffee, mint, adrue, saffron, avens, gout root.

Astringents, (*ustringentia*), from *astringo*, to bind up, obviate or remove increased evacuations, as tormentil, simarouba, purslane, banana, kino, rose, oaks, spotted geranium, alum root, pomegranate, cashew, arrow root, pleurisy root, sea-side grape, guava,

logwood, black snake root, uva ursi, sweet fern, pippiseva, candleberry myrtle, black alder, cancer root, agrimony, white ash, avens, water avens or canker root, choke cherries, privet, rose, nickers, catechu, nutmeg, galls, rhubarb, red mangrove, narrow-leaved sumach, Pensylvanian sumach, Virginian sumach, white willow, broad-leaved willow, sept foil, blackberry root, red elm, cranes bill, Indian nut, mouse ear, copaiba, vanilla, wild basil, shepherd's purse, horse tail, quince, strawberry, wild olive, plantain, poponax, cashaw, self heal, woad, medlar, yarrow, myrtle, rice, loose strife, quinchamali, sloes, spelt, five fingers, golden thread, wild gooseberry, briar rose, Jamaica dogwood, flower gentle, wild and sea side grape, amaranth, marsh rosemary, snake weed, puff balls, button wood, blood flower (*asclepias currasavica*), brasiletto, canker root.

Aromatics, (*aromatica*), stimulate the stomach, accelerate circulation and increase heat; so also do carminatives, as cassia, lavender, turmeric, capsicum, caraguay, wild carrot, saffron, clove, cascarilla, orris, cow parsnep, cinnamon, white wood, dill, peppermint, wormwood, lavender, anise, balm, ginger, cardamoms, kennebeck snake root, wild allspice bush, camphor, sassafras, pimento, angelica, bayberry, chamomile, wild cinnamon, citron, clove, collinsonia, coriander, penny royal, mace, nutmeg, balsam tree, myrrh, pimento, black pepper, long pepper, rosemary, sage, cubebs, cummin, galangal, clary, sweet marjoram, sweet flag, ginger, rosemary, alligator wood, cedar, peach.

Alexipharmics, (*alexipharmica*), from *αλεξεω και φαρμακον*, *alexeo* and *pharmacon*, are antidotes to poison, as arrow root, caaco, blue scullcap, (hydrophobia), mangrove, plantain and horehound, (for bite of rattle-snake), contrayerva, nhandiroba, nhambi, ginseng, cocoon antidote, cedar, chickweed, sensitive plant, yellow prickly wood, velvet leaf, olive, rattle-snake root, swallow-wort, borragé, marigold, rice, ghandiroba, halbert weed, Spanish carnation, sassafras, sarsaparilla, China root, lignum vitæ, burdock, indigo weed, eryngo, navel wort, hares' ears, orange, vipers' grass, rattle-snake plantain, gub a gubs, black snake root.

Alteratives, from *altero*, to alter, have a favourable effect on the constitution, without sensible operation; for examples see the above class and Tonics.

II. LOCAL STIMULANTS.

Emetics, (*emetica*), from *εμεω*, *emeo*, to vomit, excite vomiting by their action on the stomach, independent of the quantity taken, as ipecacuanha, mustard, Indian physic, walnut, lobelia, emetic weed, blessed thistle, cassio berry tea, yellow Mexican thistle, lignum vitæ, euphorbia, wild ginger, staff tree, thorough wort, puccoon, violet, bayberry, poke weed.

Cathartics, (*cathartica*), from *καθαίρω*, *kathairo*, to purge, quicken or increase the evacuation from the intestines, as jalap, aloes, oil nut, colocynth, common physic nut, French physic nut, butter nut, black alder, sempervive, belly-ach weed, may apple, gamboge, cassia marilandica, leather wood, seneca snake root, yaw weed, pleurisy root, nicker, buckthorn, guaicum, scammony, black hellebore, dwarf elder, yellow water flag, attoo, wild turnip, white hellebore, bind weed, wild cucumber, purging flax, white mechoacan.

Laxatives, (*laxantia*), from *laxo*, to relax, open and relax the bowels, without much stimulation, as tamarind, Barbadoes flower fence, oil nut, cassia fistularis, cranberries, daisy, bastard ipecacuanha, pleurisy root, wild rhubarb, wild senna, vervain, seneca rattle snake root, guaicum, rhubarb, cassia marilandica, manna ash, plum tree, common elder, violet, avens, Jamaica wild gooseberry, French sorrel.

Emenagogues, (*emenagoga*), from *εμμενια*, *emmenia*, the menses, and *αγω*, *ago*, to move and promote the menstrea, as madder, erigeron Philadelphicum, wild carrot, cohush, Mexican tea, nanny bark, green wheat, savine, ergot of rye, sow bread, mugwort, orach, mother-wort, camels hay, sweet marjoram, penny royal, ground pine, dandelion.

Diuretics, (*diuretica*), from *δειρω*, *deireo*, increase the urinary discharge, as hemlock pine, flaxweed, milk wort, nephritic tree, penguins, blackberry, may weed, ginton root, pepper grass, rest harrow, fumatory, madder, onion, elder, arnotto, cashew, dwarf elder, samphire, turmeric, fennell, glass wort, toad flax, dragon root, wild lettuce, larch, squill, winter cherries, wild sea asparagus, chervil, ox eye, dandelion, bear's whortleberry, skunk cabbage, scurvy grass, copaiba, fox glove, tobacco, lobelia syphyllitica, spiked saw wort, emetic weed, South Sea tea, Indian cucumber, skevish, locus tree, artichoke, fir, brake, buck bean, burdock, wild carrot, checker berry, nickers, pleurisy root, blessed thistle, juniper cedar, parsley, berberries.

Diaphoretics, (*diaphoretica*), from *διαφορεω*, *diaphoreo*, to carry through, increase the natural exhalation by the skin, as rattle-snake root, sarsaparilla, sassafras, angelica, catnep, centaury, payco herba, lignum vitæ, water eryngo, seneca snake root, boneset, pleurisy root, contrayerva, wild sage, silk cotton, devil's bit, tooth-ach tree, millet.

Sialagogues, (*sialagoga*), from *σιαλος*, *sialos*, saliva, and *αγω*, *ago*, to force, increase the quantity of the salivary discharge, as hemlock, camphor, seneca snake root, tooth-ach tree, tobacco, prickly yellow wood, payco coatinga, pepper, squills.

Expectorants (*expectorantia*), from *expectoro*, to discharge from the breast, promote rejection of mucus from the lungs, as pine ivory, maidenhair, skunk cabbage, garlic, hysop, balsam of Peru, balsam of tolu, cross wort, horse radish, elecampane, tobacco, rattle-snake root, puccoon, squill, benzoin, coltsfoot, slippery elm, arbor vitæ, wake robin, daisy, cotton, hemp, ground ivy, orris, jujubes, opoponax, mullein, laurel-leaved tulip tree, oily pulse, velvet leaf, horehound, currants.

Errhines, (*errhina*), from *εν*, *in*, and *ριν*, *rin*, the nose, promote a discharge of mucous or serous fluid from the nostrils, as asarabacca, white hellebore, bear's foot, orris, andromeda, kalmia, spurge, asarum canadense, beet, betony, horse chesnut, sow bread, lily of the valley, eyebright, canella, tobacco.

Epispastics, (*epispastica*), from *επι*, *epi*, and *σπαιω*, *spao*, to draw, produce when applied to the surface of the body, a serous or puriform discharge after inflaming the parts, as butter nut, moose wood, daphne, crowfoot, poison vine, poison oak, vernice tree, cashew nut, spurge laurel.

Rubefacients, (*rubefacientia*), from *rubefacio*, to make red, excite pain and inflamma-

tion, but discharge no fluid, as Indian turnip, *pyrola umbellata*, butter nut, fig, capsicum, spruce fir, mustard, common nettle, currato, dumb cane, wild radish, mezereon.

CHEMICAL REMEDIES.

Refrigerants, (*refrigerantia*), from *refrigero*, to cool, allay heat of the body.

Antacids, (*antacida*), from *anti* and *acida*, obviate acidity in the stomach.

Antiseptics, (*antiseptica*), from *αντι*, *anti*, against, and *σηπω*, *sepo*, to corrupt, prevent or stop putrefaction, as purslane, scurvy grass, sorrell, southernwood, aloes, chamomile, nettle, canella, water cresses, indigo weed, pepper grass, columbo, myrrh, wood sorrell, snake weed, marsh rosemary, berberries, coffee, angustura, wormwood, orange, lemon, Spanish oak, red mountain oak, wild cherry tree, sassafras, persimmon, dogwood, rose willow, horse chesnut, beaver tree, tulip tree, bitterwood, contrayerva.

Lithontriptics, (*lithonthriptica*), from *λιθον*, *lithon*, a stone, and *θρυπτω*, *thrupto*, to break, dissolve urinary culculi, or antilithics, which prevent the formation of them, as nephritic tree, onion, horsemint, Jamaica spikenard, spiked saw wort, bears whortleberry, uva ursi, wild potatoe, arsmart, hazel nut, Philadelphia flea bane, convolvulus panduratus,—see also Diuretics.

Escharotics, (*corrosiva*), from *εσχαρα*, *eschara*, a scar, dissolve and erode animal matter, as cevadilla, vegetable caustic of Yucatan, garden spurge, manchineel, sundew, celandine, papaw.

Antivenereals, (*antisyphilitica*), from *ante* and syphilis, remove syphilitic affections, as lime roots, majoc, nickers, sassafras, wild cherry, rose willow, lobelia syphilitica, seneca snake root, may apple, crowfoot, poke weed, prickly ash, balsam rakaisiri, ceanothus, china root, lignum vitæ, spurge laurel, sarsaparilla, new Jersey tea.

MECHANICAL REMEDIES.

Vulneraries (*vulneraria*), from *vulnus* a wound, cleanse, defend and heal up wounds, as ribbed plantain, self heal, periwinkle, golden rod, spirit leaf, tway blade, caranna, centaury, hemp agrimony, herb robert, hog gum, all-heal, hares' ears, slippery elm, Peruvian balsam, wild tansey, velvet leaf, balm of gilead, thorough wax, goose grass, iron wort, St. John's wort, Santa Maria, cerasee, Jamaica daisy.

Anthelmintics (*anthelmintica*), from *αντι*, *anti*, and *ελμινς*, *elmins*, a worm, as (*anthelmia*, worm-grass), destroy worms, and expel them, as aloes, wild ipecacuanha, wild fig, devil's bit, poisonberry or bead tree, male fern, stinking weed, angelyn tree, brakes, Carolina pink root, worm seed, or Jerusalem oak, (*chenopodium anthelminticum*), may apple, stinking hellebore, cardinal flower, ground pink, tobacco (as a cataplasm), Virginian goats' rue, speckled alder, cabbage bark, penguins, cowhage, persimmon, benzoin, mulberry, Virginian plum.

Demulcents (*demulcentia*), from *demulcens*, softening, obviate the action of acrid and stimulant matters, as Iceland moss, cocoa nuts, ochro, pindars, chocolate, oily grain or

benne, gum arabic, slippery elm, pistachio, salep, turnip, olive, maidenhair, almonds, coltsfoot, tragacanth, oats, fig, liquorice, mallows, wheat, dates, white ash, fever bush, white pond lily, sago, sugar cane, sun flower.

Diluents, (*diluentia*), from *diluo*, to dilute, increase the quantity of fluid in the blood and system, as balm, barley, white horehound, gland flax or nuil, &c. &c.

Detergents, (*detergentia*), from *detergo*, to make clean, cleanse wounds and ulcers, as cassada, canella, cerasee, cashew, marsh rosemary, red onion, wild parsnip, plantain, red mountain oak, buckthorn, wild madder, water dock, rhus glabrum, tooth-ach tree, birch, cats tail, clary, coral tree, ringworm bush, vervain, prickly yellow, French physic nut, Indian turnip, wild carrot, savine, broad-leaved laurel, balsam pine, hemlock tree, Scotch fir, black alder, wild cherry, currato, broomweed, soap berry, house leek, celandine, ar-raganas, arrow head, basil.

Emollients, (*emollientia*), from *emollio*, to soften, render the solids more lax and flexible, as barley, beet, cabbage, oil nut, cotton tree, wild liquorice, banana, marsh mallow, hyssop, galbanum, flax, mullein, melilot, chickweed, ochro, coltsfoot, sugar cane.

Discutient, (*discutientia*), from *discutiens*, medicines having power to repel, as purslane, cancer root, turnip, palm, hemlock, bittersweet, white hellebore, angelica, bean, borrag, burdock, chamomile, chickweed, love apple, sow bread, ben nut, ducks' meat, spleenwort, water lily, arsmart, anchoaca, clove strife, cotton tree, garlic pear, sow bane, oil nut, yellow pond lily of lake champlain, sumach, clown's heal-all.

Materials to put in *Aromatic Baths*,---red cedar, hemlock pine, broomweed, Spanish elder, star wort, oak bark, piper amalago, bay, hog plum, wild sage, Jamaica spice wood, vervain, clary, spikenard, &c. &c. &c.

CLASS I. MONANDRIA.

This class is the first in the Linnæan System, and comprises those plants having only one stamen or anther. It contains a fine natural order of plants, nearly allied to each other; viz. the scitamineæ, which comprehend a number of valuable aromatic, esculent and medicinal herbaceous vegetables, in which both Indies are peculiarly rich.

ORDER I. MONOGYNIA.

To avoid prolixity and the taking up too much room by a particular description of each part of fructification in every plant, the notice of them will be confined to the great leading distinctions of the classes and orders, familiar descriptions and their virtues, uses and species. For those scientific Botanists, however, who may have time and inclination for such full descriptions, they are highly interesting and useful. The following may serve as an example of a full botanical description of the parts of fructification.

INDIAN ARROW ROOT, *Maranta Arundinacea*. Calyx—a small erecto-patent perianth, fixed upon the germ, divided into three segments of a lanceolated figure. Corol—monopetalous and gaping, the tube oblong, crooked and compressed; the limb six parted, the alternate exterior segments ovated, small and equal, one below, two above; the two alternate lateral segments large, roundish, and represent a lower lip, the upper one small. Stamen—a single filament, similar to a segment of the corol. Anther—small and linear,

and fixed to the side of the filament. Germ—roundish beneath the receptacle. Style—simple and as long as the corol, towards the top revolute. Stigma—three-sided and hollowed. Pericarp—roundish, obscurely three-sided, tivalvular, and contains a seed, single, ovated, hard and rough. Receptacle—is proper. Named, from Bartolomeo, Maranta. For remainder of description, see Explanation of Plate 4.

INDIAN SHOT, *Canna Indica*. Greek *Kanna*,—hence our word cane. For remainder of description see Explanation of Plate 4.

NARROW-LEAVED GINGER, *Amomum Zinziber*. N. O. Scitamineæ; Fr. Gingembre; Ital. Gingiovo; Span. Gingibre,—also Zinziber; Gr. *Διψιον*; from the Arabic; nat. East Indies.

This valuable plant is herbaceous, having palmated tuberous roots, of a yellowish brown outside, extremely white within, and acrid when fresh. It creeps and spreads so as not easily to be eradicated, and renders the land barren. The stalks are erect, reed-like, two feet high, with alternate lanceolate leaves, embracing the stalk at their base. The flowers are borne on scapes, and arise from the sinuses of the squammæ (which are reddish at the points), small, of short duration and of a blue colour. Seed vessel, smooth, with many oblong seeds.

The root is aromatic and carminative; when preserved is an excellent stomachic, expels wind, and is very good in sea sickness. The expressed juice with cocoa nut oil is good for an embrocation in rheumatism.

It is cultivated for sale in the West Indies. The roots being dug up, carefully scraped and dried, is the White Ginger; when scalded it is termed Black Ginger. The shifted syrup made in preserving ginger is made into a liquor by fermentation, called cool drink, and commonly sold by the Negroes for five pence per bottle. Dr. Barham says the Wild Ginger will cure cancers. Ginger is preserved by soaking, boiling and scraping, and putting it in two syrups.

Broad-leaved ginger, a, zerumbet, is a native of the East Indies; great wild ginger, a, sylvestre, of Jamaica; Japan ginger, a, mioza, of Japan; cardamom ginger, a, cardamomum, of the East Indies; villose ginger, a, villosum, of Cochin-China; globose ginger, a, globosum, of China; grains of paradise, a, granum paradisi, of Guinea and the East Indies; galangale, a, galanga, of China and Cochin-China; given frequently for zedoary; tree ginger, a, arboreum, Sumatra; hirsute ginger, a, hirsutum, of the East Indies; sweet scented ginger, a, escapum, of Sierra Leone; purple bracted ginger, a,

purpureum, of the East Indies. Of the above species the cardamom, grains of paradise, and galangal, being valuable remedies, might be introduced into the West Indies with advantage.

SPIKED COSTUS. *Costus Spicatus*. N. O. Scitamineæ; Fr. Canne de Riviere; Ital. Costo; Gr. Κοστος; from the Arabic; nat. West Indies.

This plant is herbaceous with an irregular knotty root, simple stems, alternate lanceolate leaves, and flesh coloured flowers in a handsome spike; Seeds black. It is an aromatic pungent root, used in making cool drink, and a decoction is used in the first stages of Syphilis by the Negroes. The following are natives of the Indies.

Smooth-leaved, *costus arabicus*, both Indies; hairy-leaved, *c. speciosus*, East Indies; glabrous, *c. glabratus*, West Indies; Malacca, *c. Malaccensis*, Malacca.

GINGER-LEAVED HELLENIA, *Hellenia Allughas*.

SWEET-SCENTED GARLAND FLOWER, *Hedychium Coronarium*. These are natives of the East Indies, but have not yet been introduced into the West.

SPREADING HOGWEED, *Boerhaavia Diffusa*. N. O. Aggregatæ; called also Hogmeat; nat. Jamaica; named after Dr. Boerhaave, of Leyden.

This useful plant is herbaceous and parasitic, many round and glossy stalks rise from an oblong hard root, and branch out in every direction, rising sometimes ten feet. The leaves are ovated, of a bright green, and reddish at the edges, in pairs; the flowers stand in the axæ of the leaves, of a pale red outside, and a deep purple within; the stamen and style purple, anther yellow; seed single, oblong, obtuse, and angular. It grows plentifully in Jamaica, especially about Spanish town, where it is made use of to feed hogs who eat it greedily, whence it is called Hogweed. Dr. Barham calls it a wild sort of Valerian, and says it is very cooling and emollient.

Upright hogweed, *b. erecta*, nat. both Indies; clammy, *b. viscosa*, Peru; hirsute or scarlet, *b. hirsuta*, West Indies; climbing, *b. scandens*, Jamaica; tetrandrous, *b. tetrandra*, Society Isles.

JAMAICA ALPINIA, *Alpinia Occidentalis*. N. O. Scitamineæ; nat. Jamaica. Named after Prosper Alpinus, a physician and botanist.

This plant is herbaceous, with fleshy branched roots, nearly similar to ginger; stem round and smooth with alternate lanceolate leaves, sheathing the stalk at the base. Bracts of a blood red colour, as is the calyx; the flower white; capsule roundish, obscurely trigonous; seeds shining.

ALPINIA RACEMOSA, is also a native of the West Indies.

LONG-ROOTED TURMERIC, *Curcuma Longa*. N. O. Scitamineæ; Ital. Turtumaglio; Span. Curcuma; nat. Cochin-China; named from the Arabic Curcum; also called Mangel Kaa.

This plant is herbaceous, has a large oval bulbous root, with annular protuberances; within solid, of a fine yellow colour, fragrant smell, and rather acrid taste; it creeps, and is increased by smaller bulbs. The leaves are large, firm, oval, vaginant and pointed; the flower stalks rise separate, round and succulent, naked below, and the flowers formed into a thick spike above, protruded from the squamæ of the calyx; of a yellowish colour, which soon fall off; seed vessel a roundish trivalvular capsule, each cell containing many seeds.

It grows freely in the West Indies, the root is taken up as soon as the flowering stalks fade, cut in pieces and dried in the sun. Its medical virtues are attenuant and deobstruent, of use in obstructions in the viscera and jaundice. It dyes a fine yellow colour, and is a principal and wholesome ingredient in the curry powder made in the West Indies. It is applied as a cataplasm with wild rosemary leaves for those swellings of the abdomen so common among the Negroes, arising from Amenorrhagia. The following species are natives of the East Indies.

Round-rooted, c. rotunda, East Indies and China; aromatic, c. aromatica, ditto; pale, c. pallida, ditto.

TALL RENEALMIA, *Renealmia Exaltata*. N. O. Scitamineæ; named from Paul Reneaume, a physician, native of Surinam.

This plant grows to twenty feet in height, with an erect trunk which bears a bunch of flowers; the leaves are six feet long and lanceolated; the fruit is a fleshy esculent berry, and the seeds numerous. The following are natives of the East Indies.

Drooping flowered, r. nutans; upright flowered, r. calcarata.

KÆMPFERIA GALANGA, *Officinal Galangale*. N. O. Scitamineæ; Ital. Cipero; Span. Galanga; nat. East Indies; named from E. Kæmpfer.

This plant is herbaceous, with bulbous palmate roots, leaves egg-shaped, flower white with a violet spot in the middle, seeds many. The medical virtues are aromatic, diaphoretic and alexipharmic. Broad-leaved, k. latifolia; narrow-leaved, k. angustifolia; round galangal, k. rotunda, are also natives of the East Indies, and would thrive well in the West Indies.

ROUND-HEADED GLOBBA, *Globba Marantina*. N. O. Scitamineæ; malayan name; nat. East Indies.

This plant is somewhat similar to maranta. The species *uviformis*, bears a fruit similar to grapes, which is sometimes eaten. There are also *g. nutans*, *g. japonica*, *g. purpurea*, all natives of the East Indies.

OPERA GIRLS MANTISIA, *Mantisia Saltatoria*.

WOOLLY PHYLIDRUM, *Phylidrum Lanuginosum*.

Are natives of the East Indies and China, but not yet introduced into the West.

HERBACEOUS MARSH SAMPHIRE, *Salicornia Herbacea*. From Sal, Salt and Cornu a horn.

This valuable plant grows in great plenty in Jamaica, on the Salinas and Marshes near the sea coast; particularly about Port Henderson, Salt Island, and Old Harbour; and yields an alkali in great abundance, fit for making soap; there are many species natives of other climates; of which most are natives of Europe.

CLASS II. DIANDRIA.

This is the second class, comprising plants with two fruitful anthers, of equal lengths and contains many fragrant plants of the natural order *Sepiariæ*; and many others of the order *Verticillatæ*; which are very valuable aromatic medicines, as sage rosemary, &c.

ORDER I. MONOGYNIA.

RED JASMINE, *Jasminum Officinale*. N. O. *Sepiariæ*; Fr. Jasmin; Ital. Gelsomino; Span. Jasmin; from *ἰὸν καὶ ἰσάμην*; violet odour; nat. East Indies.

This beautiful and well known plant is common in the West Indies and principally used for hedges in gardens and arbours; a delightful perfume is extracted from the flowers by the Spanish ladies, made into a consistence with other balsams and worn about their persons. The following species also grow freely in the West Indies; Arabian jasmine, *nyctanthes sambac*; yellow Indian jasmine, *j. odoratissimum*; and many varieties with double flowers.

COMMON PRIVET, *Ligustrum Vulgare*. N. O. *Sepiariæ*; Fr. Troene; Ital. Ligustro; Span. Altrena; nat. West Indies; the *Ligustrum* of Pliny.

This handsome shrub grows freely in the West Indies, and is a very elegant specimen of hedge plants; *l. Japonicum*, and *l. sinense*, are natives of Japan and China; and the wax tree privet, *l. lucidum*, of China.

EUROPEAN OLIVE, *Olea Europea*. N. O. Sepiariæ; Fr. Olivier; Ital. Ulivo; Span. Olivo; nat. South of Europe.

This valuable tree might be cultivated with advantage in the West Indies, the fruit, and oil expressed from it is too well known to require a description. There are many wild sorts in Jamaica, as the black olive or olive bark called in Antigua, French oak, *Bucida Buceras*, a genus of the tenth class, first order, called by the French Grignon, is a valuable timber tree and the bark is very restraining and styptic.

There are seven species of the Olive and many varieties.

FRINGE TREE, or Snow Flower, *Chionanthus Compacta*. N. O. Sepiariæ; nat. West Indies; from *χιων*, *chion*, snow, and *ανθος*, *anthos*, a flower.

This handsome tree grows about twelve feet in height, the leaves are entire and shining, about six inches long. The flowers are of a snowy whiteness, divided into several long and narrow segments. The fruit is a one celled drupe. *C. axillaris* is a native of the East Indies.

WAVE-LEAVED TRUMPET FLOWER, *Bignonia Longissima*. N. O. Personatæ; Fr. Chene noir; nat. West Indies; named after Abbe Bignon.

This is a beautiful tree thirty feet high and more, having entire waved leaves. The Inflorescence is a paniced Raceme with numerous sweet whitish flowers; Siliques slender, roundish and two feet long. Thrives in the Savannahs in Jamaica and is considered an excellent timber tree. *B. unguis* is also a native of the West Indies and supports itself by tendrils, having axillary personated flowers.

Hairy-leaved Trumpet Flower, *B. Pentaphylla*, has an upright stem, and pale blue flowers, the Siliques crooked.

White Wood, *B. Lencoxylon*, grows to a large tree, the wood of which is excellent hard timber called White Fiddle Wood, the flowers are white and soon fall off, the pod is six inches long, the juice and tender buds are said to be an antidote to Manchineel poison. There are in all twenty-seven species of this tree most of which are natives of warm climates.

BALSAM HERB, *Justicia Comata vel Dianthera Comata*. N. O. Personatæ; nat. Jamaica; named from James Justice, Esq.

This plant is very common in Jamaica, and rises about 1½ feet high, erect, branched angularly, with lanceolate leaves and small pale blue flowers, ovate

EXPLANATION OF PLATE V.

THESE FIGURES ARE THE NATURAL SIZE AND APPEARANCE OF THE PLANTS.

CLASS III. TRIANDRIA, ORD. I. MONOGYNIA.

FIG. I. TAMARIND TREE, (*tamarindus Indica*), n. o. Lomentaceæ; Fr. Tamarin; Ital. Tamarindo; Span. Tamarindo; nat. East and West Indies; quasi Indian Date, Tamar being the Arabic for Date; called also Tamarindus Occidentalis, and Balam Pulli.

This is a large well-known tree, bearing pods from two to five inches in length, those of Yucatan in South America, and of the East Indies are larger both in the fruit and leaves. This plant is now placed in class Monadelphica, ord. Triandria, the filaments being united at the base. The timber is hard and used for many purposes in building, frequently for floors, as is the Wild Tamarind. The fruit is preserved by being shelled and pouring hot liquor out of the coppers upon it in a jar and then tying it close up. It is very cooling and antiseptic, used as a drink with water and gently relaxes the body. A decoction of the leaves is said to kill worms, and the fruit mixed with a decoction of Borage is said to allay heat of urine.

ORD. II. DIGYNIA.

2. GUINEA GRASS, or, Large Panic Grass, (*panicum Maximum vel Guineensis*), n. o. Graminæ.

The seed of this beautiful and valuable grass, is said to have been sent over from the Coast of Guinea to feed some birds, and to have been accidentally thrown out in a fence (the birds having died) where it grew; it is now the principal pasturage, for Cattle, Horses, &c. and cut and brought into the towns in bundles for sale, there being many thousands of acres of it in cultivation. It grows from five to six feet high and will continue several years without replanting. The seed is food for Ortolans or Butter Birds and Grass Birds. There are upwards of seventy species of panicum, of which about twenty are natives of the West Indies.

3. BAHAMA GRASS.

This is a valuable running grass, not growing more than six inches high, but very closely matted at the roots, and difficult to eradicate when once established, creeping on every side even under fences and stone walls. Sheep are very fond of it, as also Horses and Cattle for a change. It makes a beautiful Lawn being kept short and free from weeds, and is very common for pasture about Content and the Red Hills of St. John's in Jamaica, and other dry situations, where the Scotch Grass will not thrive, nor indeed the Guinea Grass without much rain, and in such situations, when there is much rain, Cattle are apt to tread Guinea Grass out of the ground if turned in to feed.

4. SCOTCH GRASS, or Rough-haired Panic Grass, (*panicum hirtellum*).

This very useful grass, grows four feet high in low swampy places, is green all the year, and is a juicy and nourishing food for stabled horses, when the dry weather prevents the growth of the Guinea Grass. It is said to have been introduced from Scotland

Estate in Barbadoes, and is become very common and a most valuable property on the Pens near the towns in dry weather, whence it is sent into town in carts daily for sale.

CLASS V. PENTANDRIA, ORD. I. MONOGYNIA.

5. RED PLUMERIA, or Red Jasmine, (*plumeria rubra*), n. o. Contortæ; Fr. Frangipanier Rouge; Span. Donzelle; nat. West Indies and South America; named from Father Plumier.

This beautiful tree rises about twenty feet high, the stalks are succulent and milky. The flowers come out at the end of the branches, of a fragrant odour and red colour. This specimen was taken from a tree on Mount Moreland, St. Catharine, Jamaica, the flowers of which are of a deep red, but they are generally paler somewhat inclining to a flesh colour.

White Plumeria, (*plumeria alba*), Fr. Frangipanier Blanc; grows similar to the former, but the flowers are white with a yellow spot. *P. Obtusa* and *p. Pudica*, are also natives of the West Indies, and have fragrant flowers.



EXPLANATION OF PLATE VI.

THE FIGURES ARE THE NATURAL SIZE AND APPEARANCE OF THE PLANTS.

CLASS V. PENTANDRIA, ORD. I. MONOGYNIA.

FIG. 1. MARVEL OF PERU, or, Four o'Clock, (*mirabilis dichotoma*), n. o. Dubiæ; named *Mirabilis* from the wonderful diversity of its colours; nat. East and West Indies.

This beautiful plant has a tuberous root, and herbaceous stems, which are covered with red, white, yellow and variegated flowers, three or more of these colours frequently existing on the same plant. It is called Four o'Clock by the Negroes from the flowers opening at that hour. The seeds are rough and strung for necklaces. *Mirabilis jalappa* is a native of Mexico, and is common in the West India Islands. It was supposed to be the Jalap of the shops, but Dr. Houston found that to be a *convolvulus*.

The root is cathartic in a dose of double the quantity of Jaláp. The *M. Longiflora* is a native of Mexico, and the *M. Viscosa* of Peru.

2. SAVANNA FLOWER, (*echites suberecta*), n. o. Contortæ; from *Εχίς*, a viper, for its poisonous qualities.

This is a small plant creeping among the grass in Savannahs, and only distinguishable by its small pale blue flowers. It is a slow or quick poison according to the dose, and accidents have happened from stopping breakers of Rum with grass in which this noxious weed has been concealed: the antidote is the cocoon antidote nut, and expressed arrow root juice.

3. SOUR GRASS.

This species is scarcely to be distinguished from the Guinea Grass, Plate 5, fig. 2. when they are both young and without seed, but by they that are sufficiently distinguishable. It is a troublesome weed, and supposed to be injurious to the cattle that eat it.

CLASS IV. TETRANDRIA, ORD. I. MONOGYNIA.

4. JAMAICA CONTRAYERVA, (*Dorstenia contrayerva*). n. o. Scabridæ; named after Dorstenius a German physician; native of Jamaica and St. Domingo.

This valuable herb has heart-shaped rough leaves on footstalks, and grows common in Jamaica. The roots and seeds are excellent Aromatics and Alexipharmics, or counterpoisons, and cure the bites of serpents and stings of scorpions or black spiders. A decoction of the root in water is also good in dropsies and debilitations, or taken as a bitter in wine with the addition of steel. *D. Houstoni*, is a native of Campeachy; *d. Contrayerva*, of New Spain and Tobago; *d. Drakena*, of Tobago; *d. Chinensis*, of China.

CLASS V. PENTANDRIA, ORD. I. MONOGYNIA.

ROUGH-LEAVED CORDIA, (*cordia sebestena*), n. o. Asperifoliæ; named from Cordus a German Botanist; nat. both Indies.

This beautiful tree grows about fifteen feet high, ornamented with bunches of scarlet flowers on branching peduncles. A small piece of its wood put on lighted coals will perfume a house.

SPANISH ELM, or, Prince Wood, (*cordia gerascanthus*), nat. Jamaica. The small branches are used by the coopers to make hoops, and the heart is a fine brown veiny wood easily worked. It is called by the French Bois de Chypre. Dr. Barham says the oil is equal to Rhodium.

Broad-leaved Cherry Tree, *c. Macrophylla*, is a native of Jamaica; Clammy Cherry, or Turkey Berry, *c. Collococca*, has red succulent berries which are good for turkeys and poultry to feed on, native of Jamaica; as are *c. Micranthus*, and *c. Elliptica*.



EXPLANATION OF PLATE VII.

THE FIGURES IN THIS PLATE ARE ALL OF THE NATURAL SIZE AND APPEARANCE
OF THE PLANTS.

CLASS V. PENTANDRIA, ORD. II. DIGYNIA.

FIG. 1. BASTARD IPECACUANHA, (*asclepias curasavica*), n. o. Contortæ, a species of Swallow-wort: Fr. Dompthe venin; Ital. Vintossico; Span. Vencetosico; named from Esculapius.

This herb grows very common in Jamaica, about two feet high, acrid and milky, with handsome flowers in umbels; the nectaries of an orange, and the corol revolute and of a red colour; succeeded by a follicle with imbricated seeds surrounded by a very fine silky down in considerable quantities.

The juice with syrup is given for worms, and the root dried is used by the Negroes as an emetic. It is called blood flower, being an excellent styptic for fresh wounds and the hæmorrhoids, the whole plant being pounded. Dr. Barham says a decoction will stop gleans and the fluor albus.

AURICULA, or, French Jasmin, (*a. gigantea*), is common in the Savannas of Jamaica, and grows seven feet high.

The species of this genus are very numerous, about thirty-four, of which twenty are natives of warm climates.

CLASS VI. HEXANDRIA, ORD. I. MONOGYNIA.

2. RED LILY, (*amaryllis coccinea*), n. o. Spathaceæ; Fr. Lis Rouge; Span. Lirio Roxo.

This beautiful plant rises only about a foot in height, and the flower is protruded on a footstalk from a spathe and hangs down, of a rich crimson colour, and is a great ornament to a garden, as are all the species of this genus in number twenty-eight.

3. OYSTER PLANT, (*tradescantia*), n. o. Ensatæ.

This curious plant is commonly so called, from the upper part opening and shutting like the shell of an oyster, receiving in and protecting the small white flowers at night. It is of a purple colour, and seldom exceeds three inches in height, and is a curious plant in a garden. It is a species of spider-wort, of which there are nineteen, fifteen of which are natives of the East and West Indies.

4. AMERICAN ALOE, (*agave vivipara*), n. o. Coronariæ; Fr. Aloe; Span. Aloí; nat. West Indies and South America; from *Ayavos*, *agavos*, admirable.

This beautiful plant is very common in Jamaica upon the honeycomb rocks; the leaves are about four feet long, and beset with spines at the edges. About the latter end of April the flower stalk shoots up very rapidly, so that it is commonly said to grow in one night, and they are made use of as May poles on the 1st of May. Their fine crowned stalks, thirty feet high, covered with yellow flowers, (of which the figure is one) have a very handsome appearance, relieving the dark green scenery at intervals. The inspissated juice of the leaves is used by the Negroes for soap, and the fibres make strong thread. Other species are a. *Vivipara*, a. *Virginica*, a. *Lurida*, a. *Tuberosa*, and a. *Fœtida*.

It is also called Currato, and a plaster of the Extract cures the gout and rheumatism, and pains in the joints, giving uneasiness for some time, it then drops off and leaves the part free from the disorder.

CLASS IX. ENNEANDRIA, ORD. I. MONOGYNIA.

5. CINNAMON, (*laurus cinnamomum*), n. o. Holoraceæ; Fr. Cannelier; Span. Canela; Ital. Cinnamomo.

This valuable tree grows freely in Jamaica; the leaves are trinervous and reticulated, and the young leaves of a bright crimson; the tree from which this figure is taken, was the present of Dr. Dancer, our late respected Island botanist, and produced seed in my garden at Content something similar in shape to an acorn, the bark had the flavour of the true Ceylon cinnamon, but its cultivation is not now attended to as it deserves in the West Indies, nor are the other valuable species of this genus, though they would doubtless amply repay the trouble of cultivation. This valuable aromatic is a native of the Island of Ceylon, but thrives in the West Indies, and the leaves and young buds are put into their pots by the Negroes as a Condiment, to season their vegetable food.

Wild Cinnamon, (*cassia*), is rather inferior, and a native of Malabar, Java and Sumatra.

CAMPHOR TREE, (*l. camphora*), is nearly like the Cinnamon, but grows to a larger size and the wood is useful for Carpenters' work. The Camphor as it rises adheres to hay or straw placed in the hollow of a wooden head. It is a most valuable antiseptic, antispasmodic and diaphoretic in small quantities, and from its penetrating subtle qualities very useful in embrocations and liniments for strains, swellings and inflammations. Native of China, Japan, Borneo and Sumatra.

Mountain Laurel, (*l. montana*), is a native of Jamaica, and a handsome tree.

Jamaica Laurel, Greenheart, or Cogwood Tree, (*l. chloroxylon*), is esteemed the best timber wood in Jamaica, and used always for the cogs of rollers in sugar mills.

Sweet Bay, (*l. nobilis*), grows in Jamaica, the leaves, berries and branches are used in baths and fomentations, and the berries are accounted carminative, infused as tea, or the essential oil is used. It is the $\Delta\alpha\phi\eta\eta$, *Daphne*, of the Greeks; Fr. Laurier; Ital. Aloro; Span. Laurel Regio; Indian Bay, l. Indica, is a native of Madeira, as also is l. Fæteus.

Alligator Pear, or Avocado, (*l. persea*), grows to about thirty feet high, and bears a valuable rich mild firm pulped fruit which is called vegetable marrow, and when eaten with salt and pepper is highly nourishing. Its size is that of the largest pear, and generally contains two seeds with a rugged hard brown shell contained in a membranous cover. The Negroes are very fond of it and consume great quantities and when in season it is a delicious vegetable for the table. All animals and even birds are remarkably fond of it.

White Sweetwood, (*l. leucoxylon*), has large black berries, and the leaves and shoots make excellent fodder for cattle; l. Exaltata, l. Triandra, l. Coriacea, l. Membranacea, l. Patens, l. Pendula, l. Floribunda, are all natives of Jamaica.

CLASS X. DECANDRIA, ORD. I. MONOGYNIA.

6. HORSE RADISH TREE, or Moringa, (*guilandina moringa*), n. o. Lomentaceæ; named from Guilandinus a Prussian traveller.

This useful tree grows about twenty feet high, with a smooth bark and pinnated leaves. It is chiefly used for fences, and the young shoots and seed pods are cut as food for goats and sheep. The seed vessel is a legume two feet long, trivalvular and one-celled, seeds numerous and furnished with three wings. The roots when scraped are used as horseradish to which they are very similar: nat. of East Indies; cultivated in Jamaica and Egypt.

Nicker Tree, (*guilandina bonduc*), has pinnated leaves and is armed with spines; legume broad and opening with two valves, inclosing two hard bony seeds used by the Negro children for marbles, of a yellow colour, variegated with spots, see Plate 3, fig. 12, sometimes called Bezoar nuts.

Grey Nicker Tree, (*guilandina bonducella*), has smaller leaves and ash coloured seeds, plate 3, fig. 13, these seeds powdered are said to be useful in intermittents, and the Negroes take both these and the yellow nickers in venereal cases. In Egypt the nuts of both sorts are worn as necklaces or amulets; g. Gemina, is a native of Cochin-China, and g. Nugo, of Amboyna.

7. BARBADOES PRIDE, (*poinciana* or *cæsalpinia pulcherrima*), n. o. Lomentaceæ; Fr. Poinciade ou Fleurs de Paradis; nat. both Indies; named after Cæsalpinus a physician.

This beautiful plant rises about ten feet high, leaves doubly pinnate and armed with spines; the flowers are variegated with deep red and orange, and have a very agreeable odour, the legume and seeds flattish. Also called Spanish Carnation and Wild Senna. Some varieties have flowers all yellow.

The plant is considered by the Negroes a powerful emenagogue, the flowers make a purging syrup and the root dies a scarlet colour. Nat. Jamaica and the West Indies.

C. Elata has yellow flowers with purple filaments and is a native of India. C. Sappan, or prickly Brasileto has a red, heavy and hard wood, durable in sea water and dies a beautiful red; nat. East Indies. C. Crista is also a native of Jamaica.

Brasileto, (*c. Brasiliensis*), has slender branches armed with thorns, and white flowers. This is very abundant in Jamaica, so much that I have known many hundred tons cut on and near one plantation, (Salt Island) and shipped to England for Dyers' use; the trees sometimes exceeding fourteen inches in diameter. It is also split up and used in great quantities in the Island for spokes of wheels. It is of a beautiful orange red and is a wood which is hard, heavy and takes a good polish. C. Bijuga, (perhaps the parrot wood), nat. Jamaica. C. Coriaria, nat. Curaçoa. The ripe pods are used for tanning leather, and called Libidibi.

8. Locust Tree, (*hymenæa courbaril*), n. o. Lomentaceæ; nat. West Indian Islands; named from Hymen.

This is a large spreading tree, having spikes of yellow flowers succeeded by thick brown pods containing four roundish seeds, inclosed in a whitish sweet filamentous substance of which the Negroes are very fond; the tree is very common in Jamaica. From its roots exudes the Gum Anime, making the finest varnish known; when burnt it emits a fragrant smell, and a tincture or oil is useful in embrocations and liniments; inwardly a solution of the gum is useful in venereal cases, a decoction of the leaves is carminative, and the inward bark anthelmintic. It is a heavy hard tough wood, used for cogs in wheels, and takes a fine polish. Dr. Barham says the bark cures intermittent fevers in the same quantity and as well as Jesuits bark.

9. Lignum Vitæ, (*guaicum officinale*), n. o. Gruinalis; Fr. Gaiïc; Ital. Legno santo; Span. Guayacan.

This valuable evergreen tree, grows to a pretty large size, the foliage of a dark green and flowers of a bluish violet colour, succeeded by compressed berries with two seeds, plate 3, fig. 17. The wood is heavy firm and of a dark olive colour and takes a fine polish. It is principally used for ships blocks, and I have cut or rather sawn down trees near the seaside from eighteen to twenty inches diameter. The gum is collected in considerable quantities by the Negroes exuding from wounds made by their cutlasses. The fruit is purgative and prepared with sugar excels the bark in venereal cases, and yaws; the flowers make a purging syrup like that of violets; an infusion of the bark or sawdust is valuable in chronic rheumatic and venereal cases and attenuates the blood; the foliage of the tree is of a detensive nature. Bastard Lignum Vitæ, (*guayacum sanctum*), is also a native of West Indies.



EXPLANATION OF PLATE VIII.

THE FIGURES IN THIS PLATE ARE OF THE NATURAL SIZE AND APPEARANCE OF THE PLANTS.

CLASS XVI. MONADELPHIA, ORD. POLYANDRIA.

FIG. 1. CHAIN COTTON, (*gossypium*), n. o. Columniferæ; Fr. Coton; Span. Algodon; Ital. Cotone; Gr. ξυλον.

This is a species of that valuable shrub, which was once cultivated to a great extent in Jamaica, (and is now in the Southern States of America) but was very liable to a blast which destroyed whole fields at once. It grows about ten feet high, with large yellow flowers having horned nectaries situated near the edge of the petals, and the seeds grow together in double rows like the links of a chain surrounded by the cotton, whence the trivial name. There are six species but the most common and the most productive in Jamaica is the Barbadoes Cotton, g. Barbadense the seeds of which are separated in a mill having a number of gins, through which the Cotton passes leaving the seeds behind. An acre will generally produce about 250l. weight. With pruning it will bear for seven years.

An emulsion of the seeds is said to be pectoral, and good against the bloody flux, and an oil expressed from them is detersive and used to burn in lamps.

CLASS XI. DODECANDRIA, ORD. I. MONOGYNIA.

2. RED MANGROVE TREE, (*rhizophora mangles*), n. o. Holeraceæ; Fr. Paletuvier; Span. Mangle; from Gr. ριζα και φερω, *riza* and *phero*, root bearing.

This tree grows on the borders of the creeks and salinas, and the branches hang down in the water to which the round and flat oysters attach themselves. The seed vessel is long and curiously shaped, and the seed has a vitellus and albumen. The timber is hard and used for firewood and crooked knees for boats, and the bark is most powerfully astringent, and excellent for tanning leather which it will do more perfectly in six weeks than oak bark in twelve. Piso says a piece of the root toasted and applied warm, relieves the pains of the sting of the fish Negur and Stingaree. There is also the white and black Mangrove, the latter grows about twenty feet high, and is serviceable timber and very heavy. There are six species, natives of the East Indies.

CLASS XIII. POLYANDRIA, ORD. I. MONOGYNIA.

3. MAMMEE APPLE, (*achras mamosa*), n. o. Guttiferæ of Jussieu; Fr. Abricot sauvage; Span. Mamei; now arranged in Class 23, Ord. 1, Polygamia, Monœcia.

This beautiful tree grows as in Plate 1, fig. 26, the leaves are firm and shining, and the flowers stand on short peduncles on the larger branches, they are sweet scented and of the size represented in this Plate fig. 3, having a fine appearance among the dark green foliage and succeeded by a roundish fruit about five inches in diameter covered with a rough brown rind, thick and leathery, the inner thin rind of a yellow colour is excessively bitter. The pulp is yellow of an aromatic smell and uncommon luscious and pleasant.

flavour, and by some reckoned the most delicious of the Tropical fruits; there are one, two, or more large angular rugged brown nuts in each fruit. The French distil the flowers with spirit to make Eau de Creole. The gum is like Tacamahacca, and will draw Chigoes out whole, and might be used to advantage in the early stages of Cancer, to extract it whole, as is done in some parts of America.

CLASS XIV. DIDYANMIA, ORD. II. ANGIOSPERMIA.

4. NARROW-LEAVED CALABASH, (*crescentia cujete*), n. o. Putamineæ; Fr. Calabassier couis; Span. Calabaza; named from Crescentius a writer on agriculture.

This tree does not grow very high and the branches stretch out horizontally, the leaves are placed at distances on very short petioles on the branches, the flower is single, seated on a peduncle arising from the larger branches and sometimes from the trunk, of a large size variegated with red and yellow, and of a beautiful appearance, but nauseous smell, the fruit is round, oval or bottle-shaped, containing a tart yellowish pulp with several flat seeds, inclosed in a hard thin woody shell, covered with a thin green skin which the Negroes cut out in various figures. The shells which contain from an ounce to a gallon, are used for spoons, ladles, cups and water bottles, and will bear the fire so as to boil water in. The pulp is very powerful to force the menstua and bring away the lochia, and is used sometimes by the Negroes to procure abortion. Dr. Barham says it should be given as an emenagogue with caution. The thicker parts of the shell are used to form button molds. The pulp is much used by way of a poultice, and a syrup made from it is considered pectoral, and useful in inward bruises. The wood is tough and flexile and used for saddle trees and by the chaise and kittareen makers. The leaves and pulp are sometimes eaten by cattle. It grows principally in or near the Lowlands of Jamaica and the other West Indian Islands.

Broad-leaved Calabash Tree, (*c. cucurbitina*), has more upright branches, the leaves flat, oblong and shining, the border of the corol entire, and ovate acuminate fruit, the shells too thin to be useful, but the wood is hard and white, nat. Jamaica.



ERRATA-ET CORRIGENDA.

NUMBER I.

Preface,—p. 4, line 29, for pàrellels read parallels.
 p. 6, line 4, for Pincarps read Pericarps.
 — line 5, after Plate, dele of, and insert —

Glossary,—p. 5, line 25, for sa read as.
 7, last line, for secculent read succulent.
 13, line 22, for Lineare read Linear.
 14, line 35, for Cucubitaceous read Cucurbitaceous.
 15, line 19, for heighth read height.

Expl. Plate 3, Fig. 25, for squumosa read squammosa.
 41, for hypogæ read hypogæa.
 line 34, 55, the Sugar Bean should be 54.
 63, for Contraryuba read Contrayerba.

Expl. plate 4, p. 1, line 34, for imdica read indica.
 p. 2, line 25, dele chili.

NUMBER II.

Page 22, line 18, for Cornfrey read Comfrey.
 Expl. plate 7, p. 1, line 5, for Curasavica read Curassavica.
 p. 3, line 26, for hyminæa read hymenæa.

In Plate 1, fig. 13.—Though the young Coffee tree, when about three years old, has its top pruned and the ends of the branches stretching out to nearly an equal length on all sides quite horizontally, the figure here given is too stiff and unnatural, and in fig. 22, the Ostyers attached to the extremity of the branches of the Mangrove are too large and out of proportion.

In Plate 2, Fig. 41, and in Plate 3, Fig. 56, (to which there are no corresponding explanations,) should not have been inserted in engraving the Plate.

For a Review of this Work see Critical Review for Nov.: 1844. Art 27

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The following PLANTS of NORTH AMERICA, &c. (inter alia) will be noticed.

Greek Valerian	Sun Dew	Hydrangea	Tulip Tree	Goats Rice	Indian Corn	Fig
Bell Flower	Yellow Root	Saxifrage	Magnolia	Milk Vetch	Tripsacum	Ferns
Lobelia	6 Spider-wort	Tiarella	Nelumbium	Trefoil	Sedge	Mosses
Fever-wort	Pontederia	Mitella	Wind Flower	18 St. John's-wort	Comptonia	Fungi
Mullein	Snow Drop	Pink	Custard Apple	Ascyrum	Alder	Algæ
Thorn Apple	Pancratium	Sweet William	Atragene	Goat's Beard	Box	Palms
Tobacco	Lily	Campion	Virgin's Bower	19 Sow Thistle	Pachysandra	&c. &c.
Deadly Nightshade	Amaryllis	Catchfly	Pheasant's Eye	Lettuce	Mulberry	
Winter Cherry	Garlic	Stone Crop	Crowfoot	Prenanthes	Ambrosia	
Solanum	Tulip	Peutheum	Globe Flower	Dandelion	Amaranth	
Sabbatia	Hypoxis	Wood Sorrell	Yellow Root	Hawkweed	Canada Rice	
Iron Wood	Star of Bethlehem	Poke Weed	Hellebore	Vernonia	Oaks	
Buckthorn	Squill	11 Asarabacca	14 Germander	Liatris	Hickory	
Ziziphus	Meadow Rice	Befaria	Hyssop	Canada Thistle	Walnuts	
New Jersey Tea	Asparagus	Snow Drop Tree	Catmint	Blessed Thistle	Beech	
Staff Tree	Lily of the Valley	Decumaria	Catnep	Cnicus	Birch	
Spindle Tree	Streptopus	Hudsonia	Mint	Carthamus	Hornbeam	
Itea	4uberose	Purslane	Hyptis	Bur Marygold	Hazel Nut	
Galax	Aletris	Lythrum	Hedge Nettle	Cacalia	Pine Tree	
Currant Tree	Yucca	Cuphea	Horehound	Mikania	Liquid Ambar	
Gooseberry	Agave	Spurge	Mother-wort	Eupatorium	Pitch Pine	
Violet	Orontium	House Leek	Wild Basil	Ageratum	White Pine	
Balsam	Winter Berry	12 Cactus	Thyme	Tansey	Cedar	
Vine	Berberry	Mock Orange	Balm	Wormwood	Balm of Gilead	
Ampelopsis	Dock	Myrtle	Dragon's Head	Cadweed	Arbor Vite	
Claytonia	Melanthium	Almond	Basil	Baccharis	Cypress	
Echines	Medeola	Cherry Tree	Trichostema	Flea Bane	Acalypha	
Tabernaemontana	Trillium	Apricot	Scull Cap	Erigeron	Oil Nut	
Gonolobus	Helonias	Peach	Self Heal	Colt's Foot	Phyllanthus	
Cynanchum	Water Plantain	Plum	Thryma	Groundsel	Gourd	
Dogs Bane	7 Horse Chesnut	Hawthorn	Bartsia	Star-wort	Cucumber	
Swallow-wort	Lizards Tail	Service Tree	Louse-wort	Golden Rod	Chocho	
Wormseed	8 Rhexia	Medlar	Chelone	Elecampane	22 Willows	
Beet	Tree Primrose	Pear	Petstemon	Tetragonotheca	Sea Buckthorn	
Glass-wort	Gaura	Spiraea	Toad Flax	Helenium	Candle Berry Myrtle	
Elm	Whortle Berry	Rose	Martynia	Zinnia		
Heuchera	Menziesia	Raspberry	Fig-wort	Chrysanthemum	Pyrularia	
Gentian	Heath	Dewberry	Fox Glove	Feverfew	Tooth-ach Tree	
Eryngo	Leather Wood	Blackberry	Trumpet Flower	Chamomile	Iresine	
Penny-wort	Persicaria	Dalibarda	Monkey Flower	Milfoil	Hemp	
Sanicle	Soap Berry	Strawberry	Ruellia	Ox Eye	Hop	
Thorough Wax	9 Benzoin	Cinquefoil	15 Woad	Sun Flower	Smilax	
Cow Parsnep	Sassafras	Tormentil	Pepper-wort	Rudbeckia	Dioscoria	
Angelica	Rhubarb	Avens	Wall Cress	Tick Seed Sun	Poplar	
Hone-wort	10 Podalyria	Allspice	Cabbage	Flower	Aspen	
Cicuta	Judas Tree	13 Herb Christo-	Radish	Centaury	Moon Seed	
Fools Parsley	Cassia	pher	16 Geranium	Portimora	Juniper	
Coriander	Bead Tree	Puccoon	Sida	Silphium	Yew	
Deadly Carrot	Eriogonum	May Apple	Mallow	Polymnia	Cissampelos	
Parsnep	Venus's Fly Trap	Poppy	Hibiscus	Marygold	Napæa	
Alexanders	Jussieuia	Side Saddle Flower	Stuartia	20 Orchis	Adelia	
Dill	Kalmia	Water Lily	17 Fumitory	Satyrium	23 Plantain	
Caraway	Ledum	Hydrocotylis	Milk-wort	Ophrys	Veratrum	
Parsley	1 rhodora	Lime Tree	Coral Tree	Limodorum	Indian Millet	
Sumach	Rose Bay	1. blolly Bay	Rafnia	Ladies Slipper	Maples	
Viburnum	Andromeda	Rock Rose	Bastard Indigo	Sisyrinchium	Nettle Tree	
Elder	Epigæa	Præny	Lupine	Passion Flower	Mimosa	
Bladder Nut	Gaultheria	Fothergilla	Dolichos	Birth-wort	Gleditschia	
Sarothra	Strawberry Tree	Larkspur	Glycine	Dragon	Ash Tree	
Aralia	Clethra	Wolfs Bane	Robinia	Arum	Date Plum	
Statice	Winter Green	Columbine	Hedysarum	Skunk Weed	Tupelo	
Flax	Storax	Anised Tree	Indigo	21 Duck's Meat	Ginseng	

N. B. Number I. is of itself, a concise, yet clear and comprehensive Compendium of the Elements of Botany, calculated for the use of Students or as a Class Book for the use of Schools, &c, and this Number contains a further continuation of the Natural Orders, &c.